MONITORING REPORT FOR 2015

STREAMSIDE TAILINGS OPERABLE UNIT
SILVER BOW CREEK/BUTTE AREA NPL SITE

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RESPEC

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by

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EXECUTIVE SUMMARY

The performance monitoring program evaluates the progress of remedial actions in the Streamside Tailings Operable Unit (SSTOU) of Silver Bow Creek. Environmental media monitored in 2015 included surface water, instream sediment, groundwater, vadose zone water, macroinvertebrates and periphyton, vegetation, soils, birds, and small mammals. This report summarizes results of data collected for each of these environmental media and evaluates progress toward attainment of performance goals as of 2015.[1]

For more than a century, from the 1870s through the 1980s, Silver Bow Creek received direct and indirect waste rock, slag (smelting byproduct), mill tailings, contaminated groundwater [Chadwick et al., 1985; Luoma et al. 2005], and raw municipal sewage inputs [Gless and Miller, 1973]. An estimated 2 million cubic meters of tailings were deposited directly into the stream [Luoma et al., 2005]. Prior to remediation, streamside tailings deposits were distributed along the entire length of the stream [Brook and Moore, 1989], and localized deposit depths exceeded 5 m. Much of the floodplain was devoid of vegetation due to the toxicity of floodplain tailings [Luoma et al., 2005]. Throughout the mining period (c., 1870 to 1982), the stream was utilized primarily as a sewer for the removal of industrial wastes.

In November 1995, the Montana Department of Environmental Quality (MDEQ) and the U.S. Environmental Protection Agency (USEPA) issued a Record of Decision (ROD) for Silver Bow Creek [MDEQ and USEPA, 1995] that identified the final site remedy and the agencies' rationale for selecting that remedy. The major remedial actions that resulted from the ROD include the excavation of tailings and related impacted soils from the floodplain of Silver Bow Creek, and the subsequent reconstruction of the stream channel and floodplain.

The portion of Silver Bow Creek, and the adjacent floodplain undergoing remediation under the consent decree settlement [Montana v. AR, 1998] is designated the SSTOU. The SSTOU is divided into four subareas based upon geologic and topographic features that control soil, hydrogeologic, geomorphic, surface water, ecological, demographic, and land use characteristics of the SSTOU [MDEQ and USEPA, 1995]. Each remedial subarea is further divided into remedial reaches, each approximately one mile in length.

Remedial actions include excavation of tailings and contaminated soils from the Silver Bow Creek floodplain, removal of those soils to a local repository or to the Opportunity Ponds, replacement of removed tailings with clean fill material, native grass seeding, some willow and shrub plantings, and complete channel reconstruction [USEPA, 2011]. Restoration actions involve various habitat improvements that include the addition of organic matter to the borrow soils and additional plant revegetation and aquatic habitat components [NRDP, 2005]. As of the

[1] The Record of Decision (ROD) identifies remediation goals and performance standards for surface water and groundwater. The performance monitoring program for the SSTOU evaluates a broader range of parameters than these ROD-required performance standards. The performance monitoring program identifies performance goals for the other parameters as a means of effectively discussing and evaluating the effectiveness of the remedy and restoration actions taken in the SSTOU. Use of the term "performance goal" or similar terms in this or other monitoring plans or reports is not intended to make each goal a ROD-required remediation goal or performance standard.

end of 2015, major remedial activity was complete in all Subareas of the SSTOU. Additional repairs of remnant tailings areas are planned for 2016.

Performance goals referenced in this report for surface water contaminants of concern (COC) were those specified by the SSTOU ROD. Specifically, the performance goal is for all samples collected in the SSTOU to "meet the more restrictive aquatic life or human health standards for surface water identified in MDEQ Circular WQB-7, through application of I-classification requirements" [MDEQ and USEPA, 1995]. The SSTOU ROD also specified that surface water monitoring should be conducted quarterly and identified a suite of water chemistry parameters to be monitored, including six metal contaminants of concern (COCs): arsenic, cadmium, copper, lead, mercury, and zinc. In 2015, seventeen sites were included in the monitoring network, including all sites specified by the SSTOU ROD. Thirteen sites were sampled in the SSTOU. In addition, two "background" sites in Silver Bow Creek were sampled in the "Lower Area One" portion of the Butte Priority Soils Operable Unit. Those background sites represent previously contaminated and subsequently remediated portions of the stream located immediately upstream from the SSTOU. In addition, two "reference" sites were sampled in tributary streams located within the watershed, but outside the area of primary contamination.

Surface water monitoring results indicate that remediation actions have improved water quality at sites where remediation has been completed. Metal COC concentrations at recently remediated sites in Subarea 3 and 4 are reduced from pre-remediation levels. However, COC concentrations remain elevated and at least one exceedance of the performance goals occurred at every site except the site immediately below the WWTP. Copper was the COC which most commonly exceeded the performance goals and, at all but two sites, copper exceeded the performance goal during at least three quarters. In 2015, total recoverable copper concentrations exceeded the performance goal in 63% (33 of 52) of the SSTOU samples. The proportion of samples (n = 52) which exceeded the performance goals for other total recoverable metal COC concentrations in the SSTOU, in order of frequency, were mercury (19%), cadmium (12%), lead (6%), arsenic (0%), and zinc (0%). No samples from the reference or background sites (n = 16) exceeded performance goals for arsenic, cadmium, copper, lead, or zinc. One sample (13%) from the two reference sites and one sample (13%) from the two background sites exceeded the SSTOU performance goal for mercury.

As in previous monitoring years, nutrient concentrations (total nitrogen, nitrate plus nitrite, ammonia, total phosphorus, and dissolved organic carbon) were extremely high in the SSTOU. The SSTOU reach of Silver Bow Creek begins near the inflow of the Butte municipal wastewater treatment plant (WWTP) effluent, a major nutrient point-source [Plumb, 2009; Gammons et al., 2011]. All Silver Bow Creek and Blacktail Creek sites exceeded MDEQ summertime numerical standards for total nitrogen and total phosphorus [MDEQ, 2014] during the September sample period. Nutrient concentrations (particularly ammonia) increased substantially below the WWTP outfall during all quarters. Ammonia exceeded the chronic ALS in 6% (3 of 52) of the samples collected downstream from the WWTP outfall during 2015. Nitrogen and phosphorus load estimates demonstrated that that the Butte WWTP continues to be the largest source of nitrogen and phosphorus (by far) to Silver Bow Creek. Nitrogen and

phosphorus loads increase by approximately an order of magnitude downstream from the WWTP.

Performance goals were not identified for instream sediment COCs in the SSTOU ROD [MDEQ and USEPA, 1995]. The 1998 Explanation of Significant Differences [MDEQ and USEPA, 1998] adopted criteria for sediment removal which provided for removal of the contaminated streambed material and replacement with clean material throughout the operable unit. In lieu of specific numeric performance goals for instream sediment, this monitoring program has identified consensus-based sediment quality guidelines including the "threshold effect concentrations" (TECs) and "probable effect concentrations" ([PECs) from MacDonald et al. [2000]. In addition to comparing sediment COC concentrations to those reference values, sediment monitoring in the SSTOU is conducted to determine the extent to which the streambed may be re-contaminated from upstream or other sources. As with surface water, the SSTOU ROD also specified that instream sediment monitoring be conducted quarterly at each surface water sampling site for each COC. Sediment samples were analyzed for COC concentrations in three size fractions (<0.065 mm, 0.065-1 mm, and 1-2 mm) and for the weighted mean concentration among those size fractions.

Weighted mean sediment COC concentrations in the SSTOU commonly exceeded the TEC (and often PEC) reference values at virtually all sites in 2015. However, at background sites, the magnitude of exceedances was particularly high whereas at reference sites the magnitude of the exceedances was relatively low. The proportion of SSTOU samples (n = 45; 7 sites were not sampled during the fourth quarter due to channel ice) which exceeded the TEC and PEC for weighted mean concentrations were: arsenic (80% and 24%), cadmium (96% and 4%), copper (100% and 53%), lead (73% and 7%), mercury (56% and 2%), and zinc (100% and 51%). The proportion of background samples (n = 8) which exceeded the TEC and PEC for weighted mean concentrations were: arsenic (100% and 63%), cadmium (88% and 0%), copper (100% and 88%), lead (100% and 50%), mercury (25% and 0%), and zinc (80% and 75%). The proportion of reference samples (n = 7) which exceeded the TEC and PEC for weighted mean concentrations were: arsenic (57% and 0%), cadmium (0% and 0%), copper (86% and 0%), lead (14% and 0%), mercury (0% and 0%), and zinc (43% and 0%).

As with surface water, the SSTOU ROD defined the performance goals for groundwater quality as having COC concentrations which, "Attain compliance with applicable Circular WQB-7 standards, federal MCLs (maximum contaminant levels) and federal nonzero maximum contaminant level goals (MCLGs) for all SSTOU groundwater." Moreover, "The groundwater levels to be attained consist of the more stringent of the MCL, any nonzero MCLG, or the WQB-7 human health standard for each parameter." Groundwater was monitored at 27 wells located in nine well clusters including 18 monitoring wells and nine background wells. Nine well clusters were located in the Silver Bow Creek floodplain and one cluster was located near the Mine Waste Relocation Repository (MWRR). Wells located in the MWRR were monitored during May and September of 2015, while the rest of the sites were monitored during September only.

In the floodplain well clusters in 2015, several COCs (arsenic, cadmium, copper, and zinc) exceeded the performance goals in at least one monitoring well but only arsenic exceeded the performance goal in the background wells. Of the samples collected from the background wells

located in the floodplain clusters (n = 9), 33% exceeded the performance goal for arsenic. Of the samples collected from the monitoring wells located in the floodplain clusters (n = 18), 22% exceeded the arsenic performance goal, 33% exceeded the cadmium performance goal, 6% exceeded the copper performance goal, and 39% exceeded the zinc performance goal. In the MWRR cluster, only arsenic exceeded the performance goals and the only exceedance occurred in the background well.

Vadose zone water quality is monitored in the vicinity of the MWRR to assess mobility of COCs from the repository into the underlying groundwater supply and surface water in the SSTOU. As with groundwater monitoring in the MWRR, vadose zone water was monitored in May and September utilizing soil lysimeters (seven monitoring lysimeters and one background lysimeter). Monitoring at these same lysimeters has occurred each year since 2010. Performance goals were not established in the SSTOU ROD for vadose zone water. Instead, COC concentrations and other parameters (other metals, common ions, and physical parameters) are compared between the reference and monitoring lysimeters to assess potential differences which might be indicators of leaching of COCs from the repository.

Vadose zone water samples in 2015 had similar COC concentrations to prior monitoring years (2010-2014). From 2010-2015, arsenic concentrations in four monitoring lysimeters were significantly higher than in the background lysimeter. In addition, cadmium (in three monitoring lysimeters) and copper (in one monitoring lysimeter) concentrations were significantly higher than in the background lysimeter during the 2010-2015 period. It is unclear if these differences are related to inherent differences in soil chemistry between areas sampled by the background lysimeter and the monitoring lysimeters, or if the higher analyte concentrations in the monitoring lysimeters are related to the influence of the MWRR. Future results will be observed for any trend that may indicate leaching of COCs from the repository.

Biological (macroinvertebrate and periphyton) samples were collected at each surface water sampling site during the third quarter of 2015. As with other environmental media monitored which did not have ROD-specified performance goals, reference values from specific bioindices are used to evaluate macroinvertebrate and periphyton biointegrity. Among other bioassessment indices, the Montana Valley and Foothill Prairies (MVFP) bioassessment index [Bollman, 1998] was used to evaluate macroinvertebrate biointegrity in the SSTOU. All SSTOU sites were either "moderately" or "severely" impaired for macroinvertebrate biointegrity (MVFP scores ranged from 6-44%). In the two background sites, MVFP impairment scores ranged from 11% "severe" to 44% "moderate" and scores in reference sites were "moderate" in Blacktail Creek (28%) and "slight" in German Gulch (72%). Stressors implicated as likely impairments to macroinvertebrate biointegrity in the 13 SSTOU sites included nutrients and habitat disturbance (at all sites), sediments (at 10 sites), hypoxia (at 6 sites), and metals (at 4 sites).

Among other tools, periphyton biointegrity in the SSTOU was assessed using diatom increaser taxa indices which provide impairment probability estimates from metals, nutrients, and sediment. Among the 13 SSTOU sites, the probabilities of impairment ranged from 16-99% for sediment (mean = 48%; standard deviation [SD] = 31%), from 31-97% for metals (mean = 66%; SD = 26%), and from 8-80% for nutrients (mean = 27%; SD = 19%). All SSTOU sites were

rated as “fair” or “good” for periphyton biointegrity. In background and reference sites, periphyton biointegrity ratings were “good”.

Bighorn Environmental Sciences monitored vegetation, soils, birds, and small mammals in the SSTOU in 2015. Vegetation was monitored in Subarea 2 (Reaches F and G), Subarea 3 (Reach L), and Subarea 4 (Reaches S and T). Revegetation in Reaches F and G achieved the desired conditions in 2015, ten years post-remediation. However, 10 of 14 locations in Reaches F and G sampled in 2015 demonstrated a downward trend since 2011. Bighorn Environmental Science recommends sampling Reaches F and G again after repairs are completed in those reaches and additional seeding occurs. Despite remnant contamination in the floodplain necessitating repairs and additional seeding, Reaches F and G achieved the desired conditions. Only 10 acres of Reach L was revegetated. Two sites were sampled in this reach in 2015, and vegetation was satisfactory. Vegetation in a third sample site had extensive weed cover previously, and had been treated with herbicide and interseeded. As of 2015, perennial plant cover at the third sample site was low. This site represents a repair area of two acres or less. Survival of large woody plants that were planted in Reaches S and T appeared to be low and depth to water from the top of the banks limits shrub survival. Reach T in general has good vegetation with the exception of 28 acres that were over-tilled without weed control. Kochia infestation prevented effective whitetop control there. This area still requires seeding following weed control.

Soil sampling revealed heavy textures in Reach O, including one clay. Two samples in Reach L indicated excessive mineral nitrogen but it is uncertain if the excess nitrogen was caused by the proliferation of weeds or due to poor perennial vegetation.

Bird monitoring in 2015 focused on Subareas 3 and 4 where the species lists have increased to 66 and 85, respectively. Gross bird use established quickly following revegetation. Use by additional species appeared to continue to increase over time as well as use by rare species. Habitat specialists (e.g., willow flycatcher) appear to arrive later in remediated reaches as vegetation establishes and habitat develops. Equitability or evenness of use among species tended to increase as species richness increased, apparently demonstrating a stabilizing trend after about four years. Increasing equitability was most evident in late winter use. Variation in bird use among habitats within a reach appeared to be common. For example, the ponds in Reach T (Subarea 4) apparently recruit birds, but the tall-shrub wetland to the west may also influence bird use in that reach.

Meadow vole and deer mice captures were relatively low in 2015 compared to 2014 when the populations appeared to surge. Overall, 2015 abundance was similar to 2013 for those species. Shrew captures increased from 2014 to 2015. The highest capture rate was in Reach T (new alfalfa steppe) with an overall rate of 79%.

Finally, Pioneer Technical Services contributed a data summary report describing surface water sampling at six ponds in Subarea 2 in the vicinity of the town of Ramsay, Montana. Samples were collected to evaluate total recoverable and dissolved metals and nutrients. This data summary report is included as an appendix to this report

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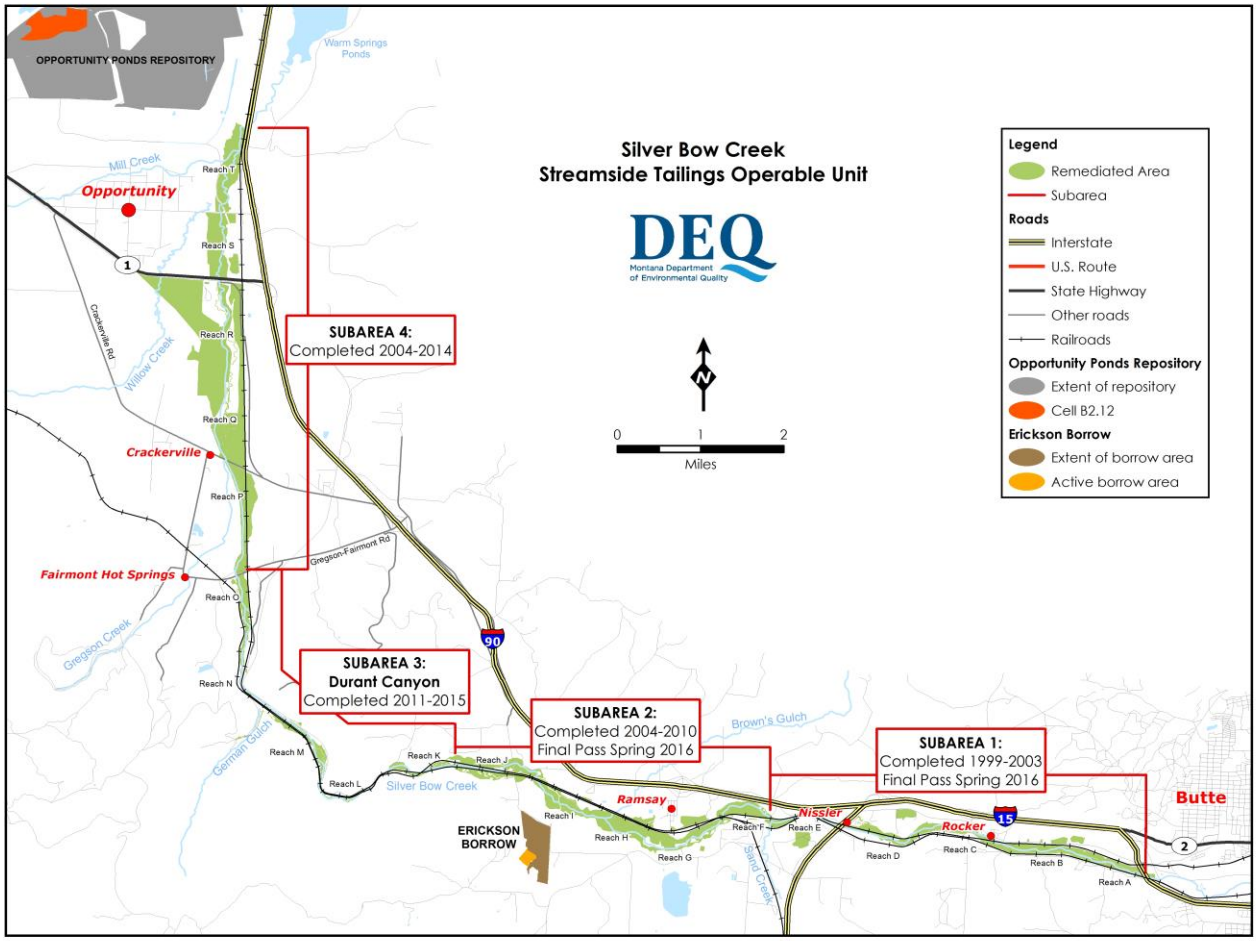
1.0 SURFACE WATER

1.1 INTRODUCTION

This chapter describes the results of surface water monitoring activities conducted in 2015 to assess the effectiveness of remedial actions implemented within the Streamside Tailings Operable Unit (SSTOU) of the Silver Bow Creek/Butte Area National Priorities List site [Figure 1-1]. Data were collected to describe the effects of remedial actions on surface water quality and to gauge progress toward attainment of performance goals.



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1.2 PERFORMANCE GOALS

The SSTOU Record of Decision (ROD) specified that the final remediation goal for contaminant of concern (COC) concentrations in surface waters was to "meet the more restrictive of aquatic life or human health standards for surface water identified in MDEQ Circular WQB-7, through application of I-classification requirements" [MDEQ and USEPA, 1995]. Since the issuance of the ROD, Circular WQB-7 [MDHES, 1994] has been replaced by Circular DEQ-7 [MDEQ, 2012a], and standards for some of COCs have been revised. The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Contingency Plan (NCP) provide for use of the new, more stringent standards where compliance with the new standard is necessary to ensure protectiveness of human health and the environment. Although there has not yet been a formal decision to adopt the new, more stringent standards for the SSTOU, this report uses the more stringent of the ROD's Circular WQB-7 [MDHES, 1994] or current Circular DEQ-7 [MDEQ, 2012a] standards for evaluating compliance for the COCs.

The most restrictive surface water standard for each COC (arsenic, cadmium, copper, lead, mercury, and zinc) is either the chronic aquatic life standard (ALS) or the human health surface water standard (HHSWS) from either Circular WQB-7 [MDHES, 1994] or Circular DEQ-7 [MDEQ, 2012a]. In both versions, the chronic ALS is hardness-based for cadmium, copper, lead, and zinc. Thus, the chronic ALS vary in relation to water hardness for those metals, in all cases becoming less restrictive as water hardness increases. The most restrictive surface water standard for each COC is depicted in Table 1-1. This report uses the current Circular DEQ-7 [MDEQ, 2012a] standards as reference values for metals which are not COCs [Table 1-2].

The most current MDEQ Circular-7 surface water standards for each metal are identified in Table 1-2. Additionally, the SSTOU ROD specifies that the remedial action objective should "support the growth and propagation of fishes and associated aquatic life…including a self-sustaining population of trout species" provided that upstream contaminant sources are eliminated.

Silver Bow Creek is classified as an "I" stream under the MCA 75-5-301 and associated administrative rules [State of Montana, 2016]. Designated beneficial uses for I-class streams are "drinking, culinary, and food processing purposes after conventional treatment; bathing, swimming, and recreation; growth and propagation of fishes and associated aquatic life, waterfowl, and furbearers; and agricultural and industrial water supply". I-classified streams include the following criteria for physical properties of water:

- Dissolved oxygen concentration must not be reduced below the applicable standards given in Circular DEQ-7 (i.e., 1-day minimum = 3 mg/L) [MDEQ and USEPA, 1995; MDEQ, 2012a].
- Hydrogen ion concentration (pH) must be maintained within the range of 6.5 to 9.5.
- Except as permitted in MCA 75-5-318, no increase in naturally occurring turbidity is allowed which will or is likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife.

- No increase in naturally occurring temperature is allowed which will or is likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife.
- No increases are allowed above naturally occurring concentrations of sediment or suspended sediment (except as permitted in MCA 75-5-318), and settleable solids, oils, or floating solids, which will or are likely to create a nuisance or render the waters harmful, detrimental, or injurious to public health, recreation, safety, welfare, livestock, wild animals, birds, fish, or other wildlife.

The SSTOU ROD did not specify nutrient (i.e., nitrogen and phosphorus) standards for surface waters in the SSTOU. However, base numeric nutrient standards have been adopted by the Montana Board of Environmental Review and MDEQ under rulemaking authority in MCA 75-5-301. Department Circular DEQ-12A [MDEQ, 2014] specifies the nutrient standards for wadeable streams in the Middle Rockies Ecoregion, which includes Silver Bow Creek and tributaries in the SSTOU. The following nutrient standards apply to streams in the SSTOU between July 1 and September 30:

- Total phosphorus = 0.03 mg/L,
- Total nitrogen = 0.3 mg/L.

In addition, Circular DEQ-7 [MDEQ, 2012a] specifies the following aquatic life standards (ALS) for total ammonia which are applicable year round[2]:

- Total ammonia acute ALS = 13.3 mg/L,
- Total ammonia chronic ALS = 3.97 mg/L.

In addition to the primary COCs, non-COCs and nutrients, measured surface water parameters included common cations and anions, total and volatile suspended sediment and field parameters including streamflow, water temperature, pH, conductivity, and turbidity. These additional data support the interpretation of water quality monitoring results and are needed to assess impairments to beneficial uses.

[2] The total ammonia acute ALS is inversely related to pH and water temperature (i.e., as pH and temperature increases the acute ALS decreases) and is also dependent on whether or not early life stage salmonids are present. The given standard assumes pH of 7.5 and that early life stage salmonids are present. Typically, pH in the SSTOU is at least 7.5 [Ingman et al., 2013a; 2013b; 2015a] and salmonids are known to be present in the SSTOU [Lindstrom, 2015]. The chronic ALS for ammonia is not influenced by the presence or absence of early life stage salmonids.

Table 1-1. Comparison of the state of Montana surface water standards in July 1994 (effective at the time of issuance of the Streamside Tailings Operable Unit Record of Decision) and October 2012 (effective in 2015) for each contaminant of concern. Gray cells indicate the most restrictive standard.

Contaminant of concern[3]	Chronic aquatic life standard (mg/L)		Human health surface water standard (mg/L)	
	MDHES [1994]	MDEQ [2012a]	MDHES [1994]	MDEQ [2012a]
Arsenic	0.190	0.150	0.018	0.010
Cadmium	0.00113	0.00027	0.00500	0.00500
Copper	0.012	0.009	1.000	1.300
Lead[4]	0.0032	0.0032	0.0150	0.0150
Mercury	0.000012	0.000910	0.000140	0.000050
Zinc	0.10599	0.11982	5.00000	2.00000

[3] The aquatic life standards for cadmium, copper, lead, and zinc vary in relation to water hardness. The values displayed in this table correspond to a water hardness of 100 mg/L as $CaCO_3$.

[4] The chronic aquatic life standard is most restrictive for lead until hardness >338 mg/L as $CaCO_3$ At hardness >338 mg/L as $CaCO_3$, the human health surface water standard becomes more restrictive. Lead standards were the same in MDHES [1994] and MDEQ [2012a].

Table 1-2. Montana surface water standards for metals which are not contaminants of concern in the Streamside Tailings Operable Unit [MDEQ, 2012a]. The most restrictive surface water standard (highlighted in gray) for each contaminant is to be used as the remediation standard for surface water in the Streamside Tailings Operable Unit [MDEQ and USEPA, 1995].

Metal[5,6]	Aquatic life standard (mg/L)		Human health surface water standard (mg/L)
	Acute	Chronic	
Aluminum	0.750	0.087	-
Antimony	-	-	0.0056
Barium	-	-	1
Beryllium	-	-	0.004
Boron	-	-	-
Chromium	-	-	0.1
Cobalt	-	-	-
Iron	-	1.00	-
Manganese	-	-	-
Molybdenum	-	-	-
Nickel	0.469	0.052	0.100
Selenium	0.020	0.005	0.050
Silver	0.0041	-	0.1000
Uranium	-	-	0.03
Vanadium	-	-	-

1.3 METHODS

The purpose of the surface water monitoring program is to collect data describing the temporal and spatial variation of metals and nutrient concentrations, and other physical properties of surface water in the SSTOU. These data provide a long-term record of environmental conditions in the SSTOU. As of 2015, 16 years of SSTOU surface water data (2000-2015) have been collected under this monitoring program. This long-term record provides a dataset to evaluate the effect of remediation on environmental conditions in the SSTOU over time.

Changes to the surface water monitoring program have occurred over time and a record of these changes is provided in the project sampling and analysis plan [Naughton et al., 2015a]. The program attempts to adhere to monitoring requirements specified in the SSTOU ROD [Table 1-3]. To comply with these requirements, surface water sampling sites were added to the

[5] The aquatic life standards for nickel and silver vary in relation to water hardness. The values displayed in this table correspond to a water hardness of 100 mg/L as $CaCO_3$.

[6] The aquatic life standards in this table are based on total recoverable concentrations for all metals in this table except aluminum which is based on dissolved concentrations.

monitoring network in 2013 (SS-13 and SS-16B) and 2014 (SS-19) [Figure 1-2; Table 1-4]. All of the sites required by the SSTOU ROD [Table 1-3] were included in the surface water monitoring program since 2014.

Table 1-3. Minimum post-remedy monitoring requirements for surface water monitoring specified in the Record of Decision for the Streamside Tailings Operable Unit [MDEQ and USEPA, 1995].

Locations/Physical	Analytical Parameters	Analytes
SS-07, SS-10, SS-13, SS-14, SS-15, SS-16, SS-17, SS-19	Metals (total recoverable and dissolved)	Arsenic, cadmium, copper, lead, mercury, zinc
	Common ions	Calcium, magnesium, sodium, potassium, chloride, sulfate
	Nutrients	Nitrate plus Nitrite Nitrogen, Phosphorus
	Physical properties	Temperature, acidity (pH), oxidation-reduction potential (Eh), conductance, dissolved oxygen concentration

1.3.1 Monitoring Locations

In 2015, major remediation in the SSTOU was completed in all subareas. Minor remedial actions were in progress in portions of Subarea 1 and 2 [Figure 1-2]. Monitoring occurred at 17 sites, 13 of which were located within the SSTOU. Locations of some sampling sites were selected based on SSTOU ROD requirements [Table 1-3]. Other sites were selected to provide greater spatial resolution or to assess the influence of specific surface water inputs. Sites located outside the SSTOU were sampled to describe surface water conditions in the stream immediately upstream from the SSTOU (SS-01, SS-05A, SS-06G) or in a major tributary (German Gulch; SS-15G) entering Silver Bow Creek within the SSTOU [Figure 1-2].

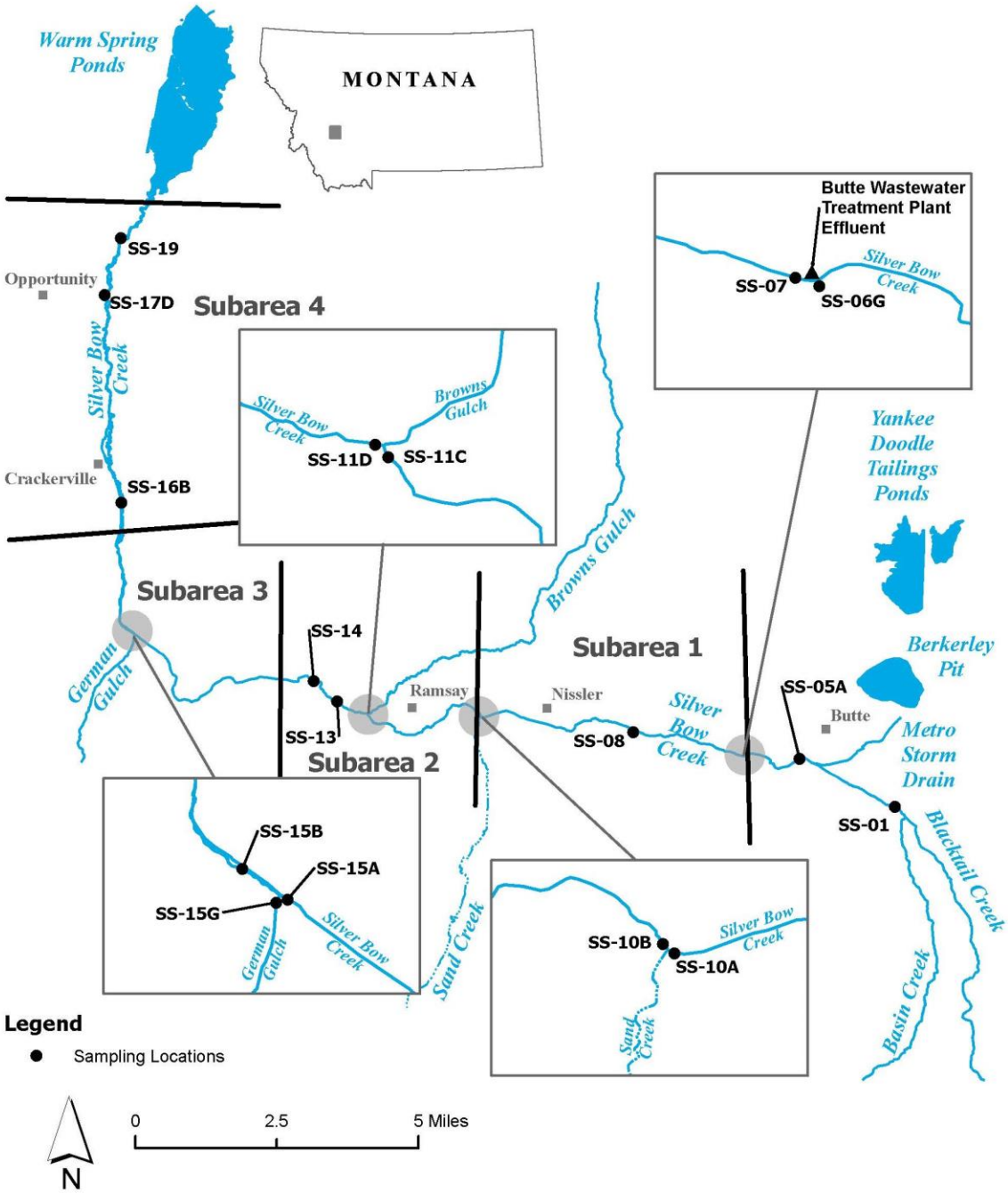

Figure 1-2. Surface water sampling locations in the Streamside Tailings Operable Unit, 2015.

Table 1-4. Surface water sampling locations in the Streamside Tailings Operable Unit, 2015.

Site ID	Site Location	Location (GPS coordinates, NAD 83)	
		Latitude	Longitude
SS-01*	Blacktail Creek at Father Sheehan Park	45.98532	-112.50772
SS-05A*	Silver Bow Creek above Butte Reduction Works	45.99653	-112.54343
SS-06G*	Silver Bow Creek above WWTP	45.99648	-112.56316
SS-07[7]	Silver Bow Creek below WWTP	45.99679	-112.56470
SS-08	Silver Bow Creek at Rocker	46.00167	-112.60490
SS-10A	Silver Bow Creek above Sand Creek	46.00375	-112.66084
SS-10B	Silver Bow Creek below Sand Creek	46.00429	-112.66160
SS-11C	Silver Bow Creek above Browns Gulch	46.00336	-112.70172
SS-11D	Silver Bow Creek below Browns Gulch	46.00342	-112.70304
SS-13	Silver Bow Creek in Reach L	46.00647	-112.71394
SS-14	Silver Bow Creek at Miles Crossing	46.01142	-112.72270
SS-15A	Silver Bow Creek above German Gulch	46.02170	-112.78969
SS-15B	Silver Bow Creek below German Gulch	46.02263	-112.79175
SS-15G*	German Gulch near confluence	46.02170	-112.79029
SS-16	Silver Bow Creek in Reach P near Fairmont	46.05494	-112.79611
SS-17D[8]	Silver Bow Creek below Stewart Street at Opportunity	46.10787	-112.80553
SS-19	Silver Bow Creek at Frontage Road	46.12247	-112.80032

* Not located within the Streamside Tailings Operable Unit.

1.3.2 Monitoring Schedule

Monitoring events were scheduled quarterly to describe seasonal variation in water chemistry within the SSTOU. One monitoring event occurred during each calendar quarter. Quarterly monitoring events occurred near the end of each quarter. First quarter (Q1) monitoring occurred from March 26–27 prior to spring snowmelt runoff. Second quarter (Q2) monitoring occurred from May 14-15 near the peak of the spring snowmelt runoff period. Third quarter (Q3) monitoring occurred from September 8-9 during low streamflow conditions. Fourth quarter (Q4) monitoring occurred from December 3-4 during late fall.

1.3.3 Monitoring Parameters

Streamflows were measured at all surface water sampling sites at the time when sampling occurred. Streamflows were determined from USGS streamflow gauges that were co-located

[7] Co-located with USGS streamflow gauge 12323250.

[8] Co-located with USGS streamflow gauge 12323600.

with the sampling sites at two sites. Streamflows were measured manually at sites without co-located USGS gauge stations. Laboratory analysis of analyte concentrations in samples was provided by Energy Laboratories (Helena, Montana). Water samples were analyzed for metal concentrations, nutrient concentrations, and other chemical and physical properties [Table 1-5].

Volatile suspended sediment (VSS) was added to the analyte list at all SSTOU sites during all sample periods in 2015 [Table 1-5]. This analyte was evaluated to quantify the proportion of organic material in each total recoverable sample. We are interested in the proportion of organic material in each sample to determine if metals in the total recoverable samples appear to be complexed primarily with organic or mineral sediments. Volatile suspended sediment measures the mass of combustible material in the total suspended sediment sample. Volatile suspended sediment concentrations provide an approximation of the concentration of organic material in the sample.

Table 1-5. Sampling parameters and analytes for surface water monitoring of the Streamside Tailings Operable Unit, 2015.

Parameter	Analytes
Concentrations of metal contaminants of concern (total recoverable and dissolved)	Arsenic, cadmium, copper, lead, mercury, zinc
Concentrations of other metals (total recoverable and dissolved)	Aluminum, antimony, barium, beryllium, boron, cobalt, chromium, iron, manganese, molybdenum, nickel, selenium, uranium, vanadium
Nutrient concentrations	Nitrogen (total nitrogen, nitrate plus nitrite, ammonia), phosphorus (total), carbon (dissolved organic)
Common ion concentrations	Sulfate, total alkalinity, bicarbonate alkalinity, calcium, magnesium, sodium, potassium, chloride, and sulfate
Other physical properties	Total and volatile suspended sediment (TSS) concentration, water hardness, water temperature, pH, specific conductivity, dissolved oxygen (DO), turbidity

1.3.4 Sample Collection and Analysis

Sample collection, analysis, and quality assurance procedures are described in the program sampling and analysis plan [Naughton et al., 2015a] and quality assurance project plan [Naughton et al., 2014]. Methods generally followed standard operating procedures (SOPs) developed for the Clark Fork River [AR, 1992]. Field sampling procedures were in accordance with MDEQ [2012b] and followed "clean hands/dirty hands" procedures as described in USGS [2006][9]. Composited surface water samples were collected using width- and depth-integration according to methods described in USGS [2006]. Field parameters (water temperature, pH, dissolved oxygen concentration, and conductivity) were measured during each monitoring event

[9] We deviated from the USGS [2006] protocols to minimize sample contamination [described in Section 4.0.2 of USGS, 2006] in two regards. First, we did not collect samples sequentially in the order of least to greatest potential for contamination. Second, samples were processed outside sampling vehicles, rather than within an enclosed space. Also note that we did not follow all "clean hands/dirty hands" protocols of Method 1669 [USEPA, 1996] or the low-level (i.e., part-per-trillion) protocols of the USGS [Lewis and Brigham, 2004].

with a field multimeter (YSI Professional Plus or YSI 556). Turbidity was measured with a field turbidity meter (Hach Model 2100P Portable Turbidimeter). Streamflows were measured using a portable electromagnetic streamflow meter (Marsh-McBirney Flo-Mate 2000). Calibration methods for field meters, data recording and handling methods, and quality assurance and quality control procedures are described in the program sampling and analysis plan [Naughton et al., 2015a]. Samples were analyzed by Energy Laboratories (Helena, Montana). Laboratory analysis procedures for each analyte are presented in Table 1-6.

Table 1-6. Analytes, analytical methods, and reporting limits for surface water samples in the Streamside Tailings Operable Unit, 2015.

Analyte	Requested Method	Requested Reporting Limit (mg/L)[10]	Holding Time (days)	Bottle	Preservative
Water Samples - Physical Properties and Inorganics					
Solids, Total Suspended (at 105C)	A 2540 D	1	7	1 L HDPE	4 ± 2 C
Solids, Volatile Suspended	SM 2540 E	1	7		
Alkalinity, Total (as CaCO3)	A 2320 B	4	14	500 mL HDPE	
Alkalinity, Bicarbonate (as HCO3)	A 2320 B	4	14		
Chloride	EPA 300.0	1	28		
Sulfate	EPA 300.0	1	28		
Hardness (as CaCO3)	A 2340 B	1	180		
Water Samples – Nutrients					
Carbon, Dissolved Organic	A 5310 C	0.5	7	Dark glass	H2SO4 to pH <2, 4 ± 2 C
Nitrogen, Ammonia (as N)	EPA 350.1	0.05	28	250 mL HDPE	4 ± 2 C
Nitrogen, Nitrate-Nitrite (as N)	EPA 353.2	0.02			H2SO4 to pH <2, 4 ± 2 C
Nitrogen, Total	A 4500 N-C	0.05	30		4 ± 2 C
Phosphorus, Total	EPA 365.1	0.003	28		H2SO4 to pH <2, 4 ± 2 C
Water Samples - Dissolved Metals (0.45 µm filtered)					
Aluminum	EPA 200.8	0.009	180	250 mL HDPE	HNO3 to pH <2
Antimony	EPA 200.8	0.0005			
Arsenic	EPA 200.8	0.001			
Barium	EPA 200.8	0.003			
Beryllium	EPA 200.8	0.0008			
Boron	EPA 200.8	0.1			
Cadmium	EPA 200.8	0.00003			
Calcium	EPA 200.8	1			
Chromium	EPA 200.8	0.01			
Cobalt	EPA 200.8	0.01			
Copper	EPA 200.8	0.001			
Iron	EPA 200.8	0.02			
Lead	EPA 200.8	0.0003			
Magnesium	EPA 200.8	1			

[10] Requested reporting limits are either the required reporting limit from MDEQ [2012a] or MDEQ [2014b] (for nutrients), or the lowest reporting limit previously provided by the analytical laboratory, whichever is lower.

Manganese	EPA 200.8	0.001			
Molybdenum	EPA 200.8	0.005			
Nickel	EPA 200.8	0.002			
Potassium	EPA 200.8	1			
Selenium	EPA 200.8	0.001			
Silver	EPA 200.8	0.0002			
Sodium	EPA 200.8	1			
Uranium	EPA 200.8	0.0002			
Vanadium	EPA 200.8	0.1			
Zinc	EPA 200.8	0.008			
Mercury	EPA 245.1	0.000005	28		
Water Samples - Total Recoverable Metals					
Total Recoverable Metals Digestion	EPA 200.2	-	-	-	-
Aluminum	EPA 200.8	0.009	180	250 mL HDPE	HNO3 to pH <2
Antimony	EPA 200.8	0.0005			
Arsenic	EPA 200.8	0.001			
Barium	EPA 200.8	0.003			
Beryllium	EPA 200.8	0.0008			
Boron	EPA 200.8	0.1			
Cadmium	EPA 200.8	0.00003			
Calcium	EPA 200.8	1			
Chromium	EPA 200.8	0.01			
Cobalt	EPA 200.8	0.01			
Copper	EPA 200.8	0.001			
Iron	EPA 200.8	0.02			
Lead	EPA 200.8	0.0003			
Magnesium	EPA 200.8	1			
Manganese	EPA 200.8	0.001			
Mercury	EPA 245.1	0.000005	28		
Molybdenum	EPA 200.8	0.005	180		
Nickel	EPA 200.8	0.002			
Potassium	EPA 200.8	1			
Selenium	EPA 200.8	0.001			
Silver	EPA 200.8	0.0002			
Sodium	EPA 200.8	1			
Uranium	EPA 200.8	0.0002			
Vanadium	EPA 200.8	0.1			
Zinc	EPA 200.8	0.008			

1.3.5 Data Analysis

Data analysis included description of spatial trends and temporal (quarterly and annual) trends in analyte (metals and nutrients) concentrations and physical properties. Attainment of performance goals was assessed by comparing analyte concentrations at specific sites to the relevant standards. In addition, spatial and temporal contaminant loading trends were examined to assess contaminant sources and transport dynamics.

Evaluation of some ALS standards requires an assumption that the measured analyte concentrations are consistent over time. For example, the chronic ALS is typically based on 96-hour mean concentrations and the acute ALS are typically based on 1-hour mean concentrations [MDEQ, 2012a]. However, in this monitoring program, analyte concentrations are measured at a specific point in time and mean concentrations over time are unknown. Therefore, all

assessments of ALS exceedances assume that the measured concentration was representative of the mean concentration over the necessary time period.

Assessment of nutrient monitoring results included, 1) comparisons of total nitrogen, nitrate plus nitrite nitrogen, and total phosphorous concentrations to reference concentrations; 2) examination of spatial patterns for total nitrogen and total phosphorous loads as indicators of nutrient sources; and 3) evaluation of total ammonia concentrations in relation to pH and water temperature-dependent ammonia ALS.

Compliance ratios were computed for the COC metals by dividing each metal concentration from 2005-2015 by the respective performance goal. Compliance ratio results are presented as line graphs on a logarithmic scale ranging from 0.01 to 100, with a value of 1.0 corresponding to 100% of the performance standard value. Values exceeding 1.0 represent exceedances of the performance goal. Compliance ratios are presented at a subsample of Silver Bow Creek sites which have monitoring data extending back to 2005 including: Silver Bow Creek below the WWTP (SS-07), Silver Bow Creek at Rocker (SS-08), Silver Bow Creek above Sand Creek (SS-10A), Silver Bow Creek below Sand Creek (SS-10B), Silver Bow Creek below Browns Gulch (SS-11D), and Silver Bow Creek below Stewart Street at Opportunity (SS-17D).

Load estimates were calculated from the instream analyte concentration data and the instantaneous streamflows gauged at the time of sampling or obtained from the USGS for their co-located streamflow gauging stations. Load data provide some insight into temporal and spatial characteristics of analyte transport and sources within and upstream from the SSTOU. However, it should be noted that load data do not take into account river travel times because monitoring was not performed with regard to river travel times and also does not account for potential influences of rapidly changing instream conditions during some monitoring events which may be related to variation in discharge from the Butte wastewater treatment plant. Those factors may account for some of the apparent gains or losses in loading between monitoring stations during any of the four monitoring events.

Finally, surface water samples were analyzed for COC and non-COC metal and metalloid concentrations. The SSTOU ROD specifies that monitoring should assess if non-COC metals have concentrations exceeding performance goals [MDEQ and USEPA, 1995]. We have interpreted the performance goals for non-COC analytes to be the most restrictive of the most current Circular DEQ-7 standards [MDEQ, 2012a].

1.3.6 Data Validation

Data quality objectives (DQOs) were established in the SSTOU quality assurance project plan (QAPP) for “data representativeness”, “comparability”, “completeness”, “sensitivity”, “precision”, “bias”, and “accuracy” [Naughton et al., 2014]. Methods for field and laboratory quality assurance and quality control (QA/QC) procedures are described in detail in the QAPP. A completed QA/QC checklist, summary tables of field duplicate and field blank results, and assessments of data quality objectives are included in Appendix A.

1.4 RESULTS

1.4.1 Streamflows

Annual streamflows at three Blacktail Creek and Silver Bow Creek USGS gauging stations during the 2015 calendar year are depicted in hydrographs from three USGS gauging stations: Blacktail Creek at Butte (USGS 12323240) [Figure 1-3], Silver Bow Creek below Blacktail Creek at Butte (USGS 12323250) [Figure 1-4], and Silver Bow Creek at Opportunity (USGS 12323600) [Figure 1-5]. Each hydrograph also depicts the long-term median streamflow at each gauge location for each day based on the available (23-31 year) period of record [Figure 1-3; Figure 1-4; Figure 1-5]. Streamflows measured by RESPEC or the USGS at each of the SSTOU monitoring stations are depicted in Figure 1-6. Streamflows depicted for Silver Bow Creek below the Butte WWTP (SS-07) and Silver Bow Creek below Stewart Street at Opportunity (SS-17D) reflect USGS daily mean streamflows for those sites during each quarterly monitoring event. At all other sites, the streamflow depicted in Figure 1-6 represents the streamflow measured at the time water samples were collected. During Q4, some streamflows were not measured due to ice in the stream channel [Figure 1-6]

The 2015 monitoring year was characterized by variable streamflows in Silver Bow Creek and its tributaries. Streamflows ranged from average to well above average depending on the time of year. Streamflows were above normal from January through March at the three USGS gauging stations [Figure 1-3; Figure 1-4; Figure 1-5]. Streamflows were above the long term median from mid-March through April reflecting an early period of snowmelt runoff [Figure 1-3; Figure 1-4; Figure 1-5]. Streamflows were more normal in the April to early-May period [Figure 1-3; Figure 1-4; Figure 1-5]. Streamflows were above average from mid-May to early-June and the annual peak occurred on May 17-18, 2015 [Figure 1-3; Figure 1-4; Figure 1-5]. Streamflows were then in the normal range from mid-June to November, with some intermittent, small pulses in streamflow [Figure 1-3; Figure 1-4; Figure 1-5]. Streamflows were generally above normal in November and December 2015 based on the long-term USGS records [Figure 1-3; Figure 1-4; Figure 1-5].

First quarter surface water monitoring (March 26–27, 2015) was conducted during above normal streamflow conditions [Figure 1-3; Figure 1-4; Figure 1-5]. Second quarter monitoring (May 14-15, 2015) occurred three days prior to the annual peak of the spring snowmelt runoff period [Figure 1-3; Figure 1-4; Figure 1-5]. Streamflows were near normal and declining during the Q3 monitoring event (September 8-9, 2015) and only slightly above normal during Q4 monitoring (December 3-4) [Figure 1-3; Figure 1-4; Figure 1-5].

Streamflows increased gradually from Blacktail Creek at Father Sheehan Park station to Silver Bow Creek at Miles Crossing and increased abruptly from above to below the German Gulch confluence [Figure 1-6]. Apparent losses in streamflow in Silver Bow Creek were noted during several quarterly monitoring events in the stream segment from Rocker to below Sand Creek (Q1, Q2, Q3), from below Browns Gulch to Reach L (Q1, Q2), and from Miles Crossing to above German Gulch (Q1, Q2, Q3) [Figure 1-6].

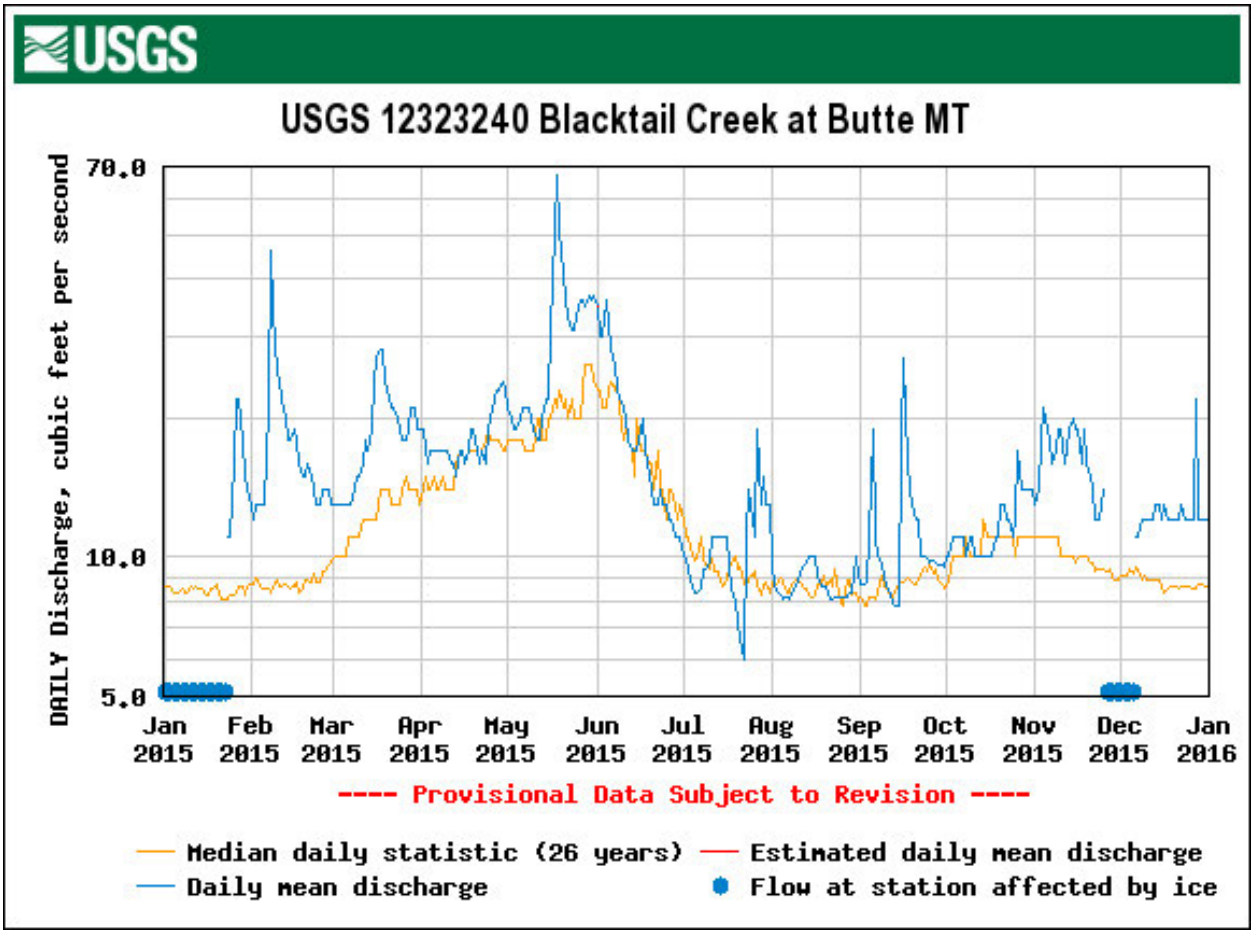

Figure 1-3. Hydrograph for Blacktail Creek at Butte, Montana, 2015.

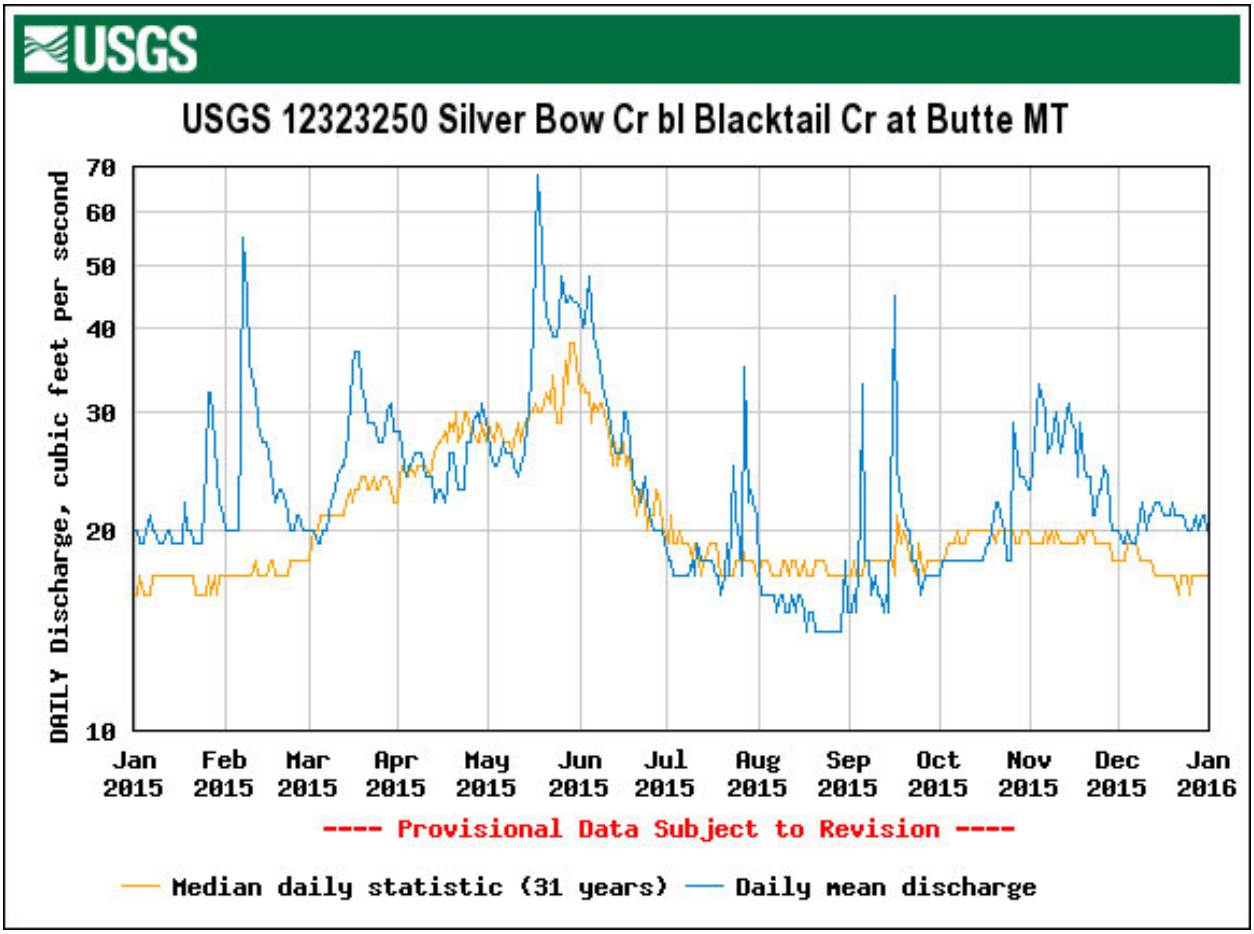

Figure 1-4. Hydrograph for Silver Bow Creek below Blacktail Creek at Butte, Montana, 2015.

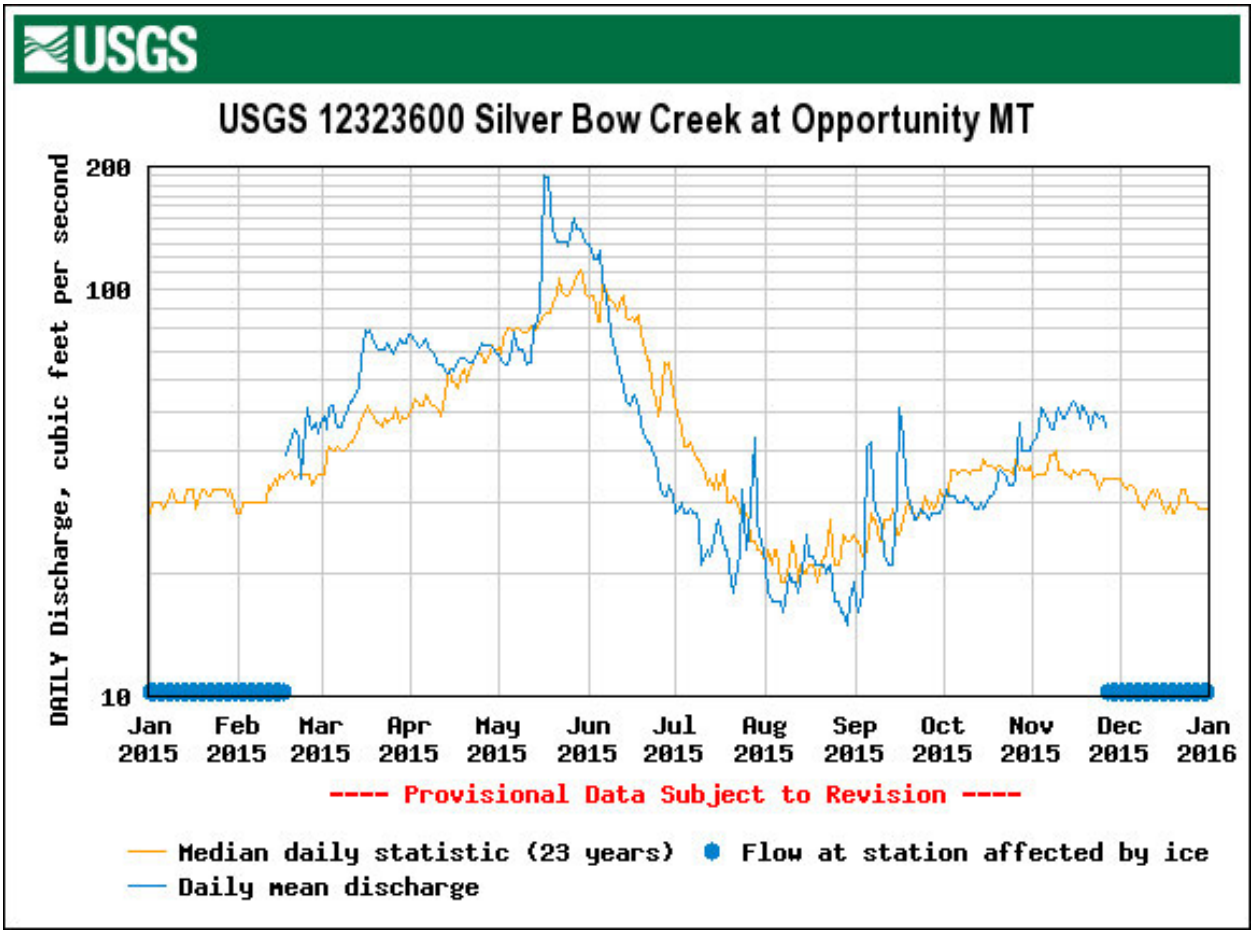

Figure 1-5. Hydrograph for Silver Bow Creek at Opportunity, Montana, 2015.

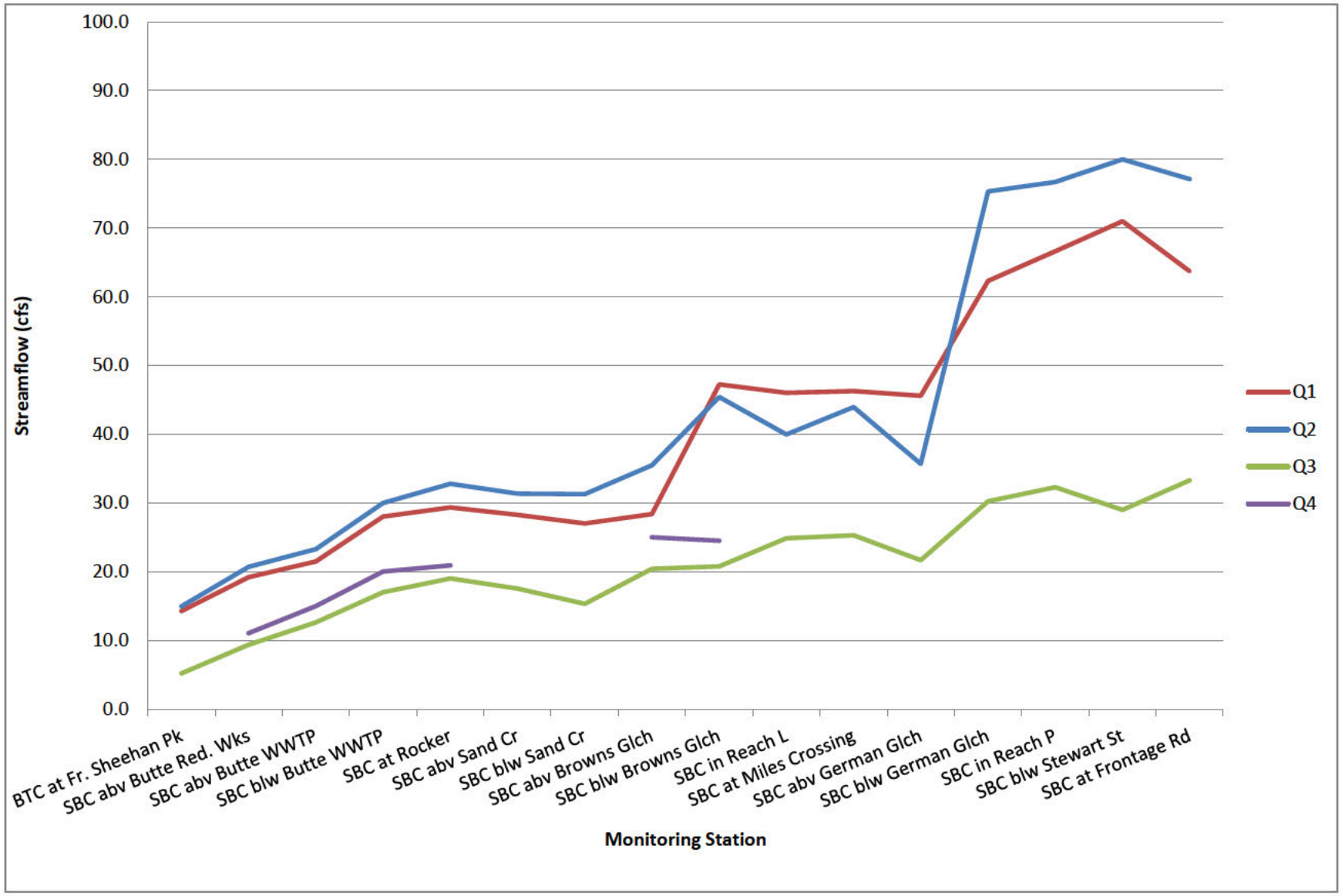

Figure 1-6. Streamflows at Streamside Tailings Operable Unit monitoring stations, 2015.

1.4.2 Field Parameters

1.4.2.1 Water Temperature

Water temperatures in the SSTOU in 2015 were consistently below 16 C [Figure 1-7]. Highest water temperatures during the four quarterly monitoring events were observed in Q3 [Figure 1-7]. The coolest temperatures were observed in Q4 [Figure 1-7]. Temperatures at many of the sites were 0 C during the Q4 monitoring event and are not readily apparent in Figure 1-7.

The Butte wastewater treatment plant (WWTP) and German Gulch inflows appeared to influence water temperatures in the Silver Bow Creek mainstem on a seasonal basis. During the Q4 monitoring event, water temperatures in Silver Bow Creek were nearly 4 C warmer downstream from the WWTP outfall compared to the site immediately upstream from the outfall [Figure 1-7]. Water temperatures in Silver Bow Creek downstream from the German Gulch confluence were approximately 1-3 C cooler compared to immediately upstream from the confluence during the Q1, Q2 and Q3 monitoring events [Figure 1-7].

Spatially, water temperature trends are difficult to assess because monitoring occurred over a two day period and monitoring occurred at different times of day at each station. Some variation in water temperatures between sites are likely due to diel warming between sites and variation in air temperatures between monitoring days in the same period.

1.4.2.2 Acidity

All pH measurements in the SSTOU in 2015 were between 7.09–9.27, which is within the I-classification goal range for I-classification streams (6.5-9.5) [Figure 1-8]. The highest pH values at most sites occurred in Q2 of 2015 [Figure 1-8]. The lowest pH values occurred in Silver Bow Creek below Browns Gulch and in Silver Bow Creek at Frontage Road during Q1, with values of 7.12 and 7.09, respectively. Seasonally, the lowest pH values and the smallest variability between stations were observed during the Q1 (10 of 17 sites) or Q4 (5 of 17 sites) monitoring events [Figure 1-8].

Field pH values measured during the four quarterly monitoring events in 2015 showed similar variability (range of 7.09 to 9.27) to 2013 (range of 7.13 to 9.26), somewhat less variability than in 2014 (range of 6.57 to 9.02), and somewhat more variability than in 2012 (range of 7.56 to 8.88).

1.4.2.3 Conductivity

The highest conductivities at most (13/17) of the SSTOU monitoring stations were observed during the Q4 monitoring event when streamflows were at a winter base streamflow level [Figure 1-9]. The lowest conductivities at most (12/17) stations were observed in Q2 during snowmelt runoff conditions [Figure 1-9]. Conductivity tended to increase gradually from the upper-most monitoring station (Blacktail Creek at Father Sheehan Park) downstream to the Butte WWTP then remained more or less static to below Sand Creek [Figure 1-9]. There was another step increase in conductivity from the below the Sand Creek station to the above

Browns Gulch station during all four quarterly monitoring events [Figure 1-9]. Conductivity was generally similar between the stations from below Browns Gulch to above German Gulch [Figure 1-9]. Below the German Gulch confluence a decrease in conductivity was observed at the four downstream Silver Bow Creek monitoring stations [Figure 1-9].

During 2015, conductivity at SSTOU monitoring stations ranged from a low of 181 µS/cm in German Gulch at its mouth in Q1, to a high of 595 µS/cm in Silver Bow Creek above the Butte WWTP in Q4. This range was similar to that observed in 2014 (171-611 µS/cm) and 2013 (173-635 µS/cm).

1.4.2.4 Dissolved Oxygen

Dissolved oxygen concentrations at the SSTOU monitoring stations during the four quarterly 2015 monitoring events ranged from a low of 5.32 mg/L (Silver Bow Creek at Rocker in Q3) to 13.80 mg/L (German Gulch near its mouth in Q4) [Figure 1-10]. During most quarterly monitoring events, the lowest dissolved oxygen concentrations were observed at the two Silver Bow Creek stations downstream of the Butte WWTP outfall [Figure 1-10]. Dissolved oxygen concentrations also had larger seasonal variations at stations below the Butte WWTP; particularly in the reach from just below the WWTP to the site below Sand Creek [Figure 1-10].

The stream was supersaturated (>100% saturation) with dissolved oxygen at two stations above, and eight stations below, the Butte WWTP outfall in 2015 [Figure 1-11]. Sites which had supersaturated oxygen conditions included: Silver Bow Creek above the Butte Reduction Works (Q2), Silver Bow Creek above the Butte WWTP (Q2), Silver Bow Creek above (Q2) and below (Q2) Sand Creek, Silver Bow Creek in Reach L (Q2, Q3), Silver Bow Creek at Miles Crossing (Q2, Q3), Silver Bow Creek above (Q2, Q3) and below (Q2) German Gulch, Silver Bow Creek in Reach P (Q2), and Silver Bow Creek below Stewart Street at Opportunity (Q2, Q3) [Figure 1-11]. Maximum dissolved oxygen saturation was 127% at Silver Bow Creek in Reach L in Q2 [Figure 1-11].

Dissolved oxygen concentrations in Silver Bow Creek were generally similar from 2012-2015. However, the lowest dissolved oxygen concentrations in 2015 (5.32 mg/L) were lower than in 2012 (7.88 mg/L), 2013 (6.50 mg/L), or 2014 (7.03 mg/L).

1.4.2.5 Turbidity

Turbidity was generally low (<10 NTU; Nephelometric Turbidity Units) for 90% (61 of 68) of the samples in the SSTOU in 2015 [Figure 1-12]. The highest turbidity measurements by site occurred in Q4 at 47% (8 of 17) of the monitoring stations [Figure 1-12]. Turbidity was also commonly elevated in Q2. In Q2, 35% (6 of 17) monitoring stations had the highest turbidity measurements [Figure 1-12]. During Q4, turbidity was particularly elevated at all Silver Bow Creek monitoring stations from above the Butte Reduction Works to below Sand Creek, as well as in Reach L and at Miles Crossing [Figure 1-12]. During all quarters of 2015, German Gulch had the lowest turbidity of all monitoring sites in the SSTOU [Figure 1-12]. The highest turbidity measurement in the SSTOU in 2015 (15.7 NTU) was considerably lower than the

highest measurement in 2014 (36.8 NTU) and slightly lower than the highest measurement in 2013 (19.0 NTU).

1.4.2.6 Total Suspended Sediment

The highest total suspended sediment (TSS) concentrations observed in the SSTOU in 2015 tended to occur in Q4 (11 of 17 stations) or Q2 (6 of 17 stations) [Figure 1-13]. Elevated total suspended sediment in Q4 occurred primarily in the Silver Bow Creek monitoring sites extending from above the Butte Reduction Works to below sand Creek [Figure 1-13]. In addition, elevated total suspended sediment concentrations were observed in Reach L and at Miles Crossing in Q4 [Figure 1-13].

The highest total suspended sediment concentrations in 2015 were observed in Silver Bow Creek above (41 mg/L) and below (44 mg/L) Sand Creek in Q4 [Figure 1-13]. In contrast, the highest total suspended sediment concentrations observed in Q2 occurred in Silver Bow Creek in Reach L (24 mg/L) and Silver Bow Creek at Miles Crossing (22 mg/L) [Figure 1-13]. Blacktail Creek at Father Sheehan Park and German Gulch at its mouth had consistently low total suspended sediment concentrations (range: 2-9 mg/L) [Figure 1-13].

Overall, 91% (62 of 68) of the samples from the SSTOU in 2015 had total suspended sediment concentrations ≤25 mg/L [Figure 1-13]. Total suspended sediment concentrations exceeded 25 mg/L in Q4 at the following stations: Silver Bow Creek above the Butte Reduction Works, Silver Bow Creek at Rocker, Silver Bow Creek above and below Sand Creek, Silver Bow Creek in Reach L, and Silver Bow Creek at Miles Crossing [Figure 1-13]. Spatially, total suspended sediment concentrations in Silver Bow Creek were relatively high in Silver Bow Creek from above Browns Gulch to above German Gulch compared to other sites [Figure 1-13]. In Q4, total suspended sediment concentrations were elevated from Silver Bow Creek above the Butte Reduction Works to Silver Bow Creek at Miles Crossing [Figure 1-13]. Total suspended sediment concentrations were lower in Silver Bow Creek immediately downstream from German Gulch compared to immediately upstream [Figure 1-13]. Total suspended sediment concentrations at SSTOU monitoring stations in 2015 were generally within the range of concentrations observed in 2013 and 2014.

In 2015, the highest total suspended sediment loads at most monitoring stations occurred during Q2 when streamflows were highest [Figure 1-14]. Exceptions to this pattern included Silver Bow Creek above the Butte Reduction Works, Silver Bow Creek above the Butte WWTP, and Silver Bow Creek at Rocker. At those sites total suspended sediment loads were highest in Q4 [Figure 1-14]. The largest increases in total suspended sediment loads between adjacent sites occurred in Q2 between Silver Bow Creek in Reach P and below Stewart Street at Opportunity (1.81 tons/day), and between the Silver Bow Creek sites above and below Browns Gulch (1.18 tons/day). Total suspended sediment loads in Silver Bow Creek generally increased incrementally between sites (with some variation) but increased sharply between the Silver Bow Creek above Browns Gulch and below Browns Gulch sites in Q1 and Q2 and between Reach P and Opportunity in Q1 and Q2 [Figure 1-14]. Total suspended sediment loads in Silver Bow Creek decreased sharply between Miles Crossing and above German Gulch in Q2 and Q3

[Figure 1-14]. The highest total suspended sediment load (3.74 tons/day) was observed at the downstream-most station (Silver Bow Creek at the Frontage Road) in Q2 [Figure 1-14].

1.4.2.7 Volatile Suspended Sediment

Volatile suspended sediment concentrations in 2015 ranged from 1-11 mg/L at the SSTOU monitoring sites [Figure 1-15]. Overall, 24% (16 of 68) of the samples had volatile suspended sediment concentrations >5 mg/L [Figure 1-15]. Volatile suspended sediment concentrations were highest in Q4 particularly from Rocker to below Sand Creek and at Miles Crossing [Figure 1-15]. Spatially, the highest volatile suspended sediment concentrations in the Q1, Q2, and Q3 were generally observed in Silver Bow Creek between the above Browns Gulch site and the above German Gulch site [Figure 1-15]. Volatile suspended sediment concentrations were also elevated in Q4 at sites extending from above the Butte Reduction Works to Miles Crossing [Figure 1-15]. Spatial patterns for volatile suspended sediment loads [Figure 1-16] were similar to the spatial patterns for total suspended sediment loads [Figure 1-14].

The relationship between volatile and total suspended sediment concentrations appeared to be approximately linear with volatile sediments accounting for approximately one third of the total sediment concentration [Figure 1-17]. However, there appeared to be some curvature to the relationship indicating that at higher total sediment concentrations the proportion of volatile sediments decreased slightly [Figure 1-17].

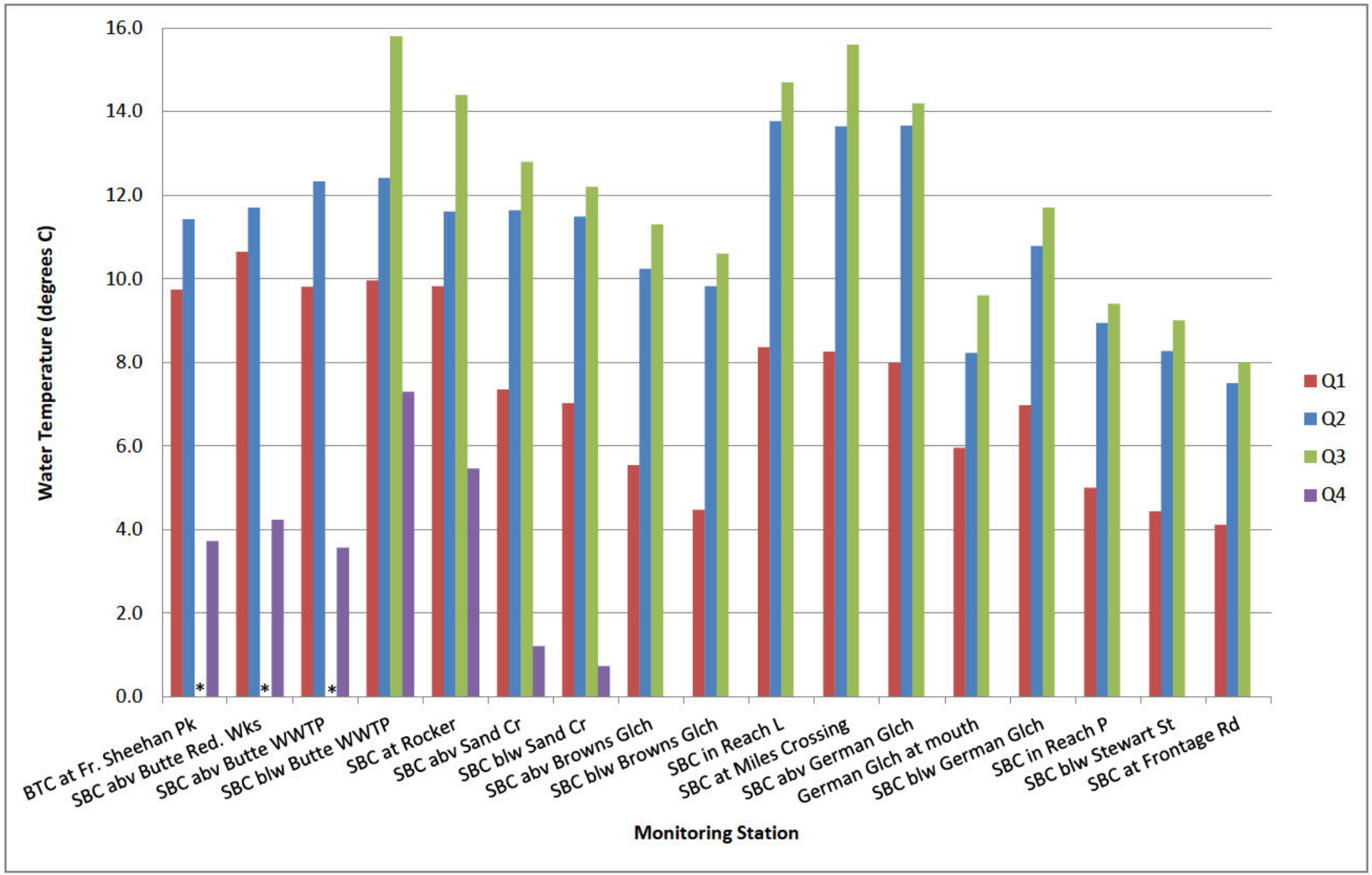

Figure 1-7. Surface water temperatures at Streamside Tailings Operable Unit monitoring stations, 2015. Temperatures not depicted in Q4 were 0 C. Asterisks indicate missing data due to instrument failure.

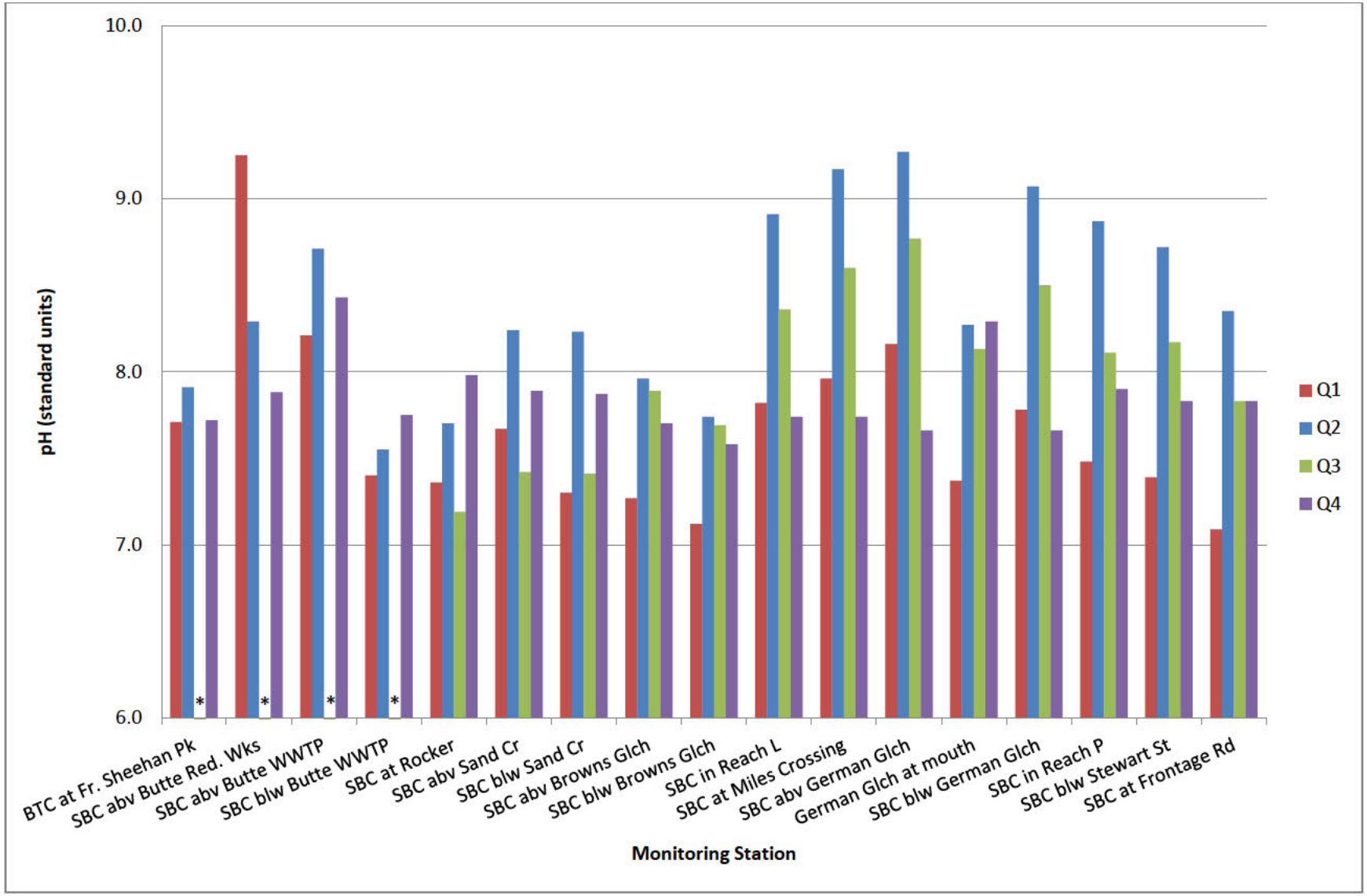

Figure 1-8. Surface water pH at Streamside Tailings Operable Unit monitoring stations, 2015. Asterisks indicate missing data due to instrument failure.

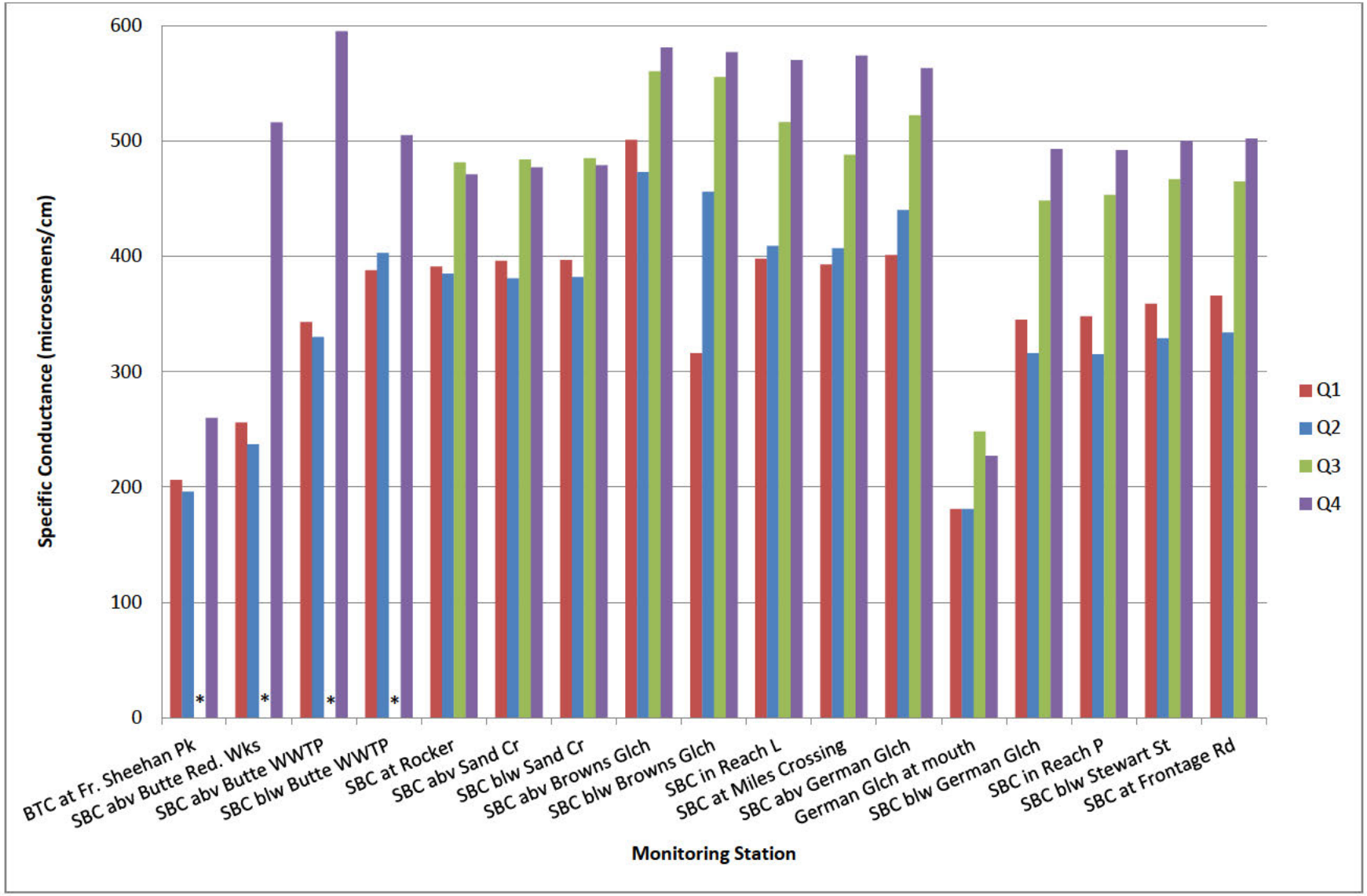

Figure 1-9. Conductivity at Streamside Tailings Operable Unit monitoring stations, 2015. Asterisks indicate missing data due to instrument failure.

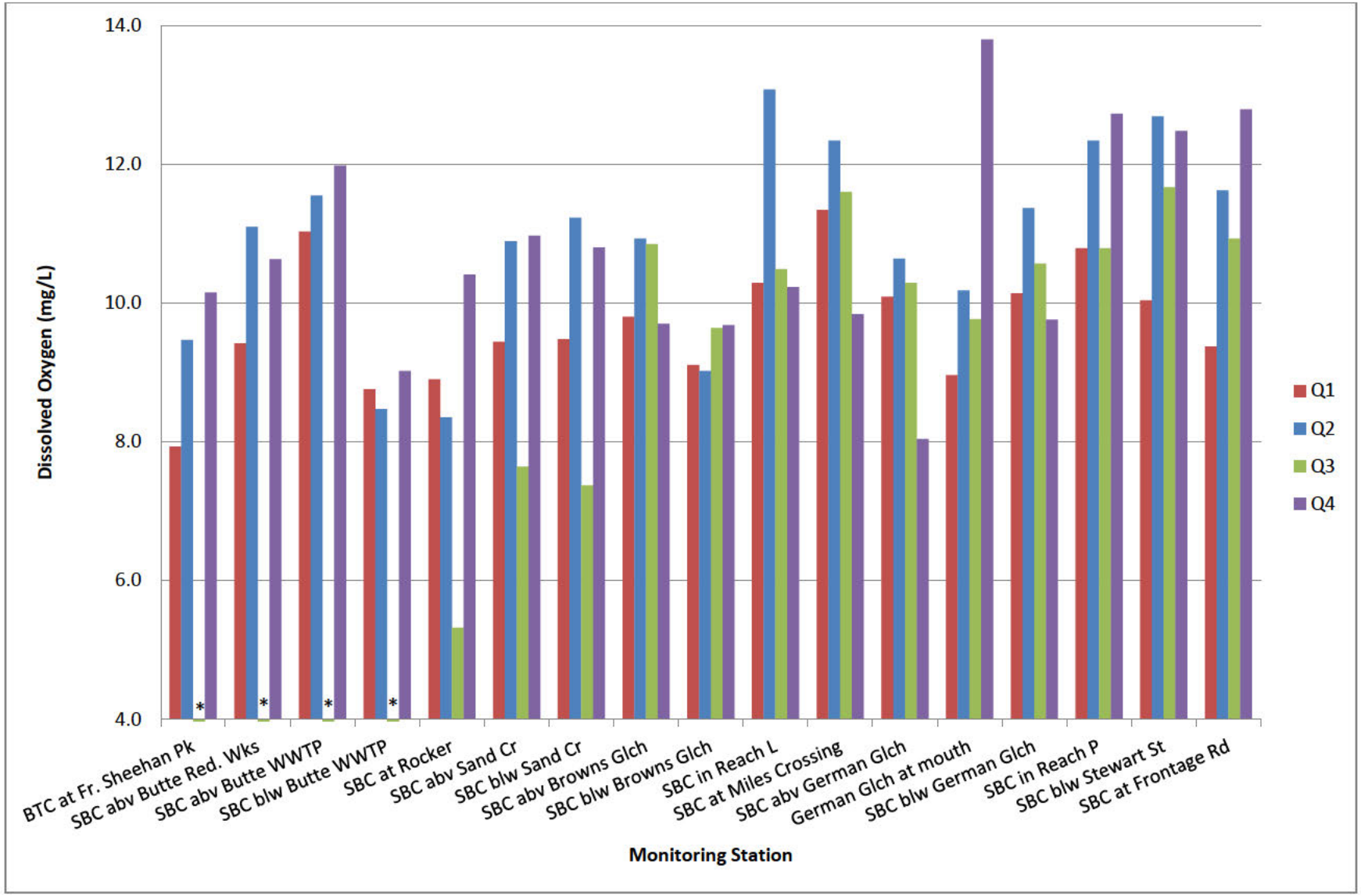

Figure 1-10. Dissolved oxygen concentrations at Streamside Tailings Operable Unit monitoring stations, 2015. Asterisks indicate missing data due to instrument failure.

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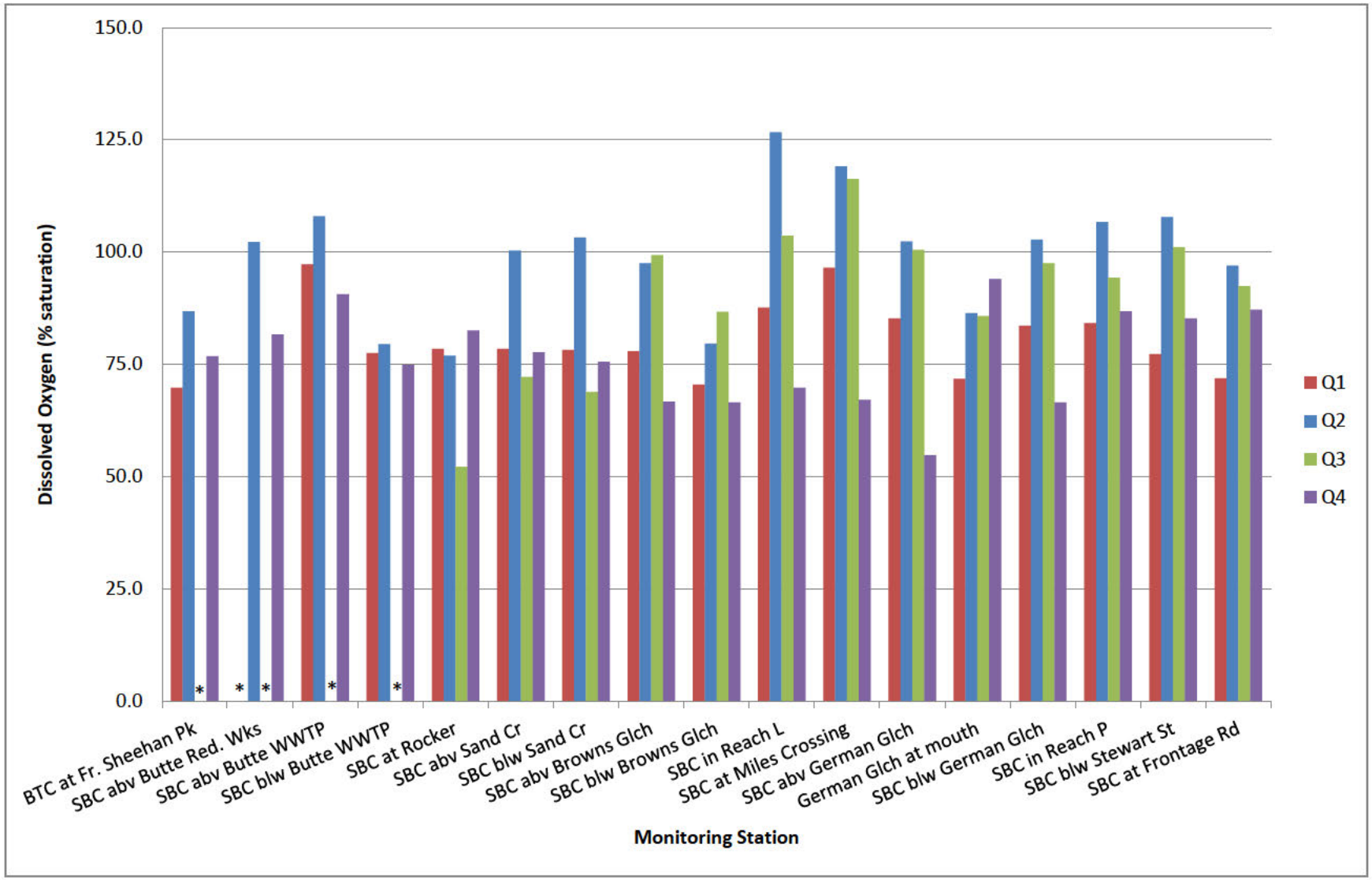

Figure 1-11. Dissolved oxygen saturation at Streamside Tailings Operable Unit monitoring stations, 2015. Asterisks indicate missing data due to instrument failure.

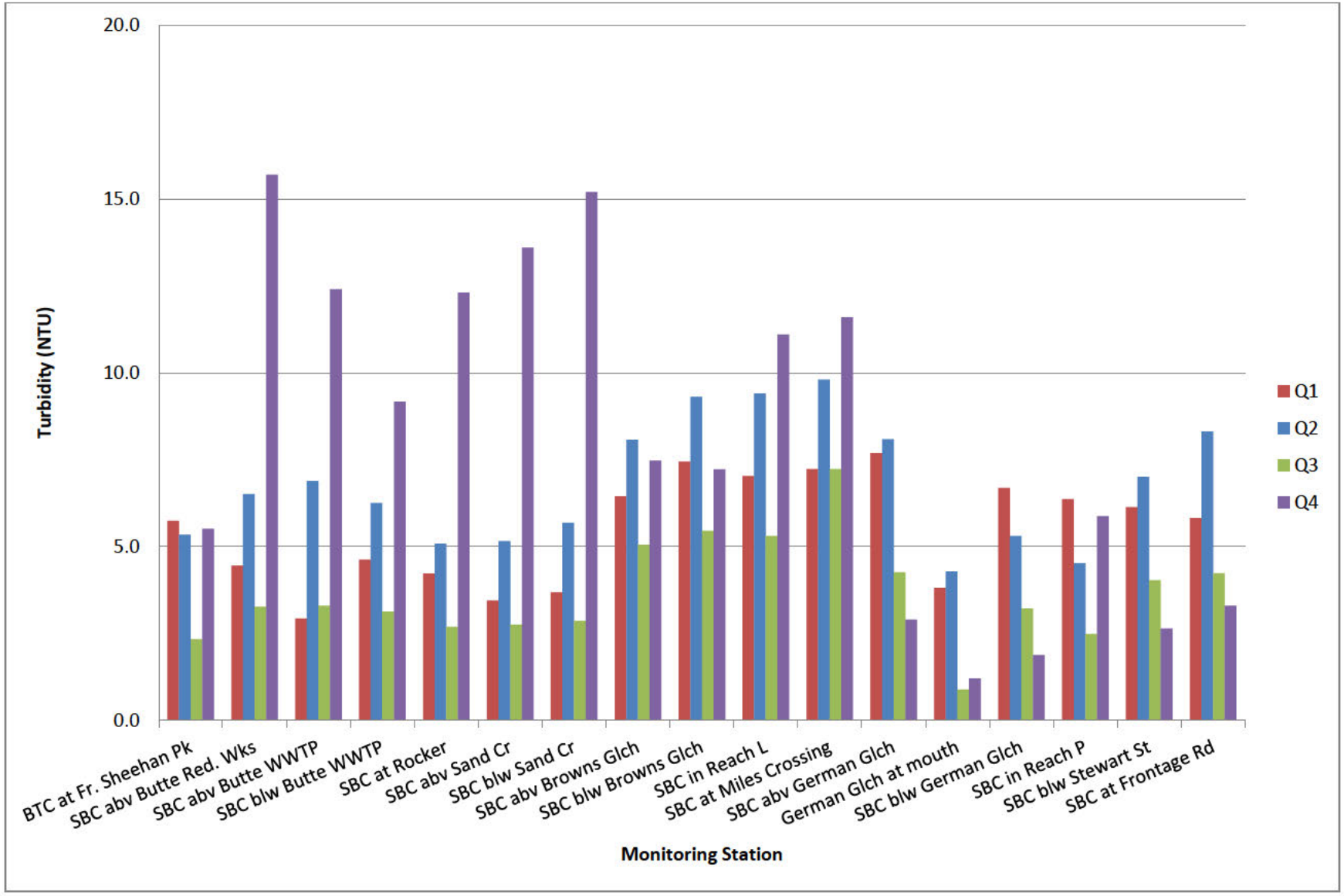

Figure 1-12. Turbidity at Streamside Tailings Operable Unit monitoring stations, 2015.

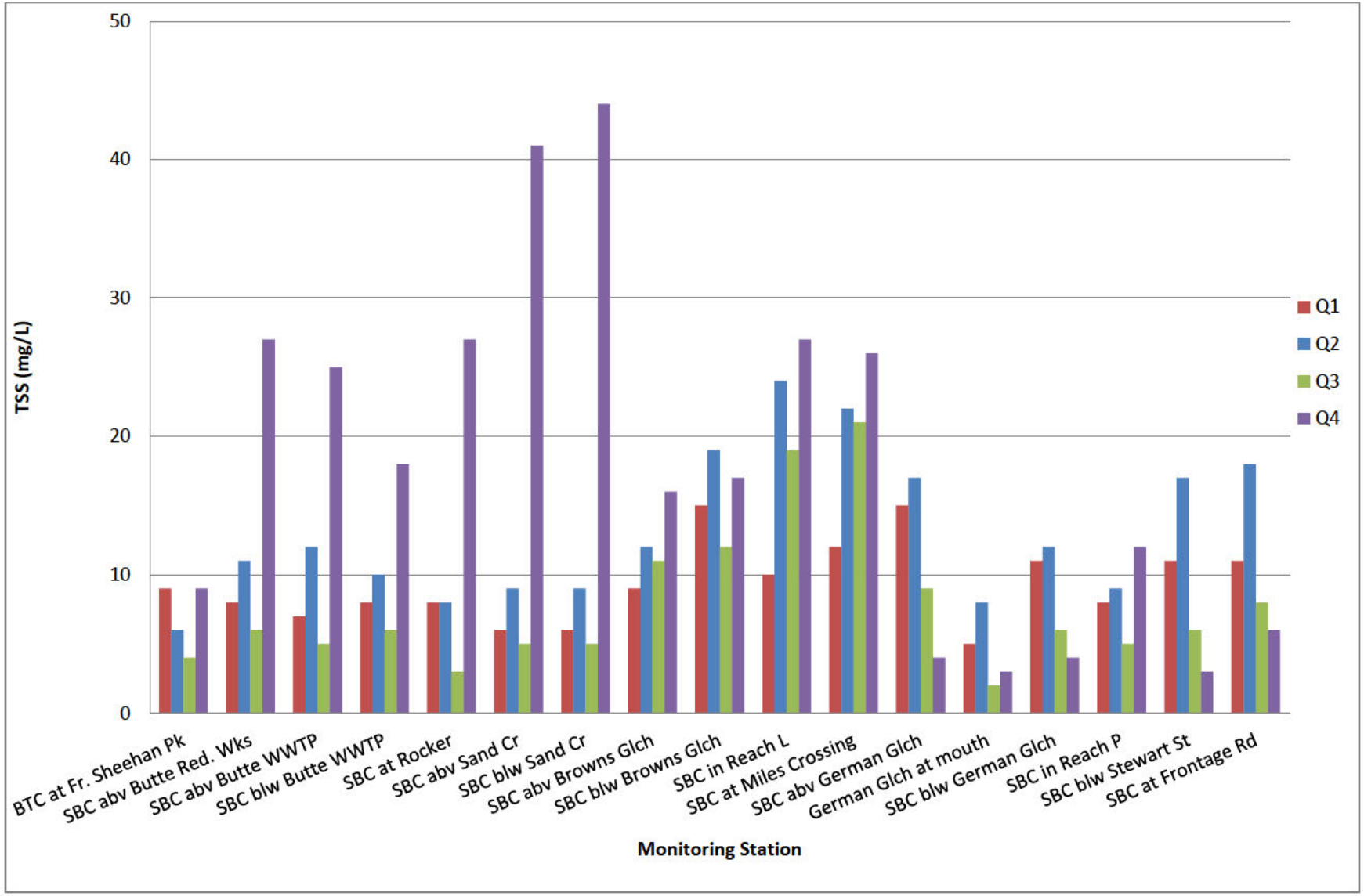

Figure 1-13. Total suspended sediment concentrations at Streamside Tailings Operable Unit monitoring stations, 2015. No bars indicate values less than the analytical reporting level.

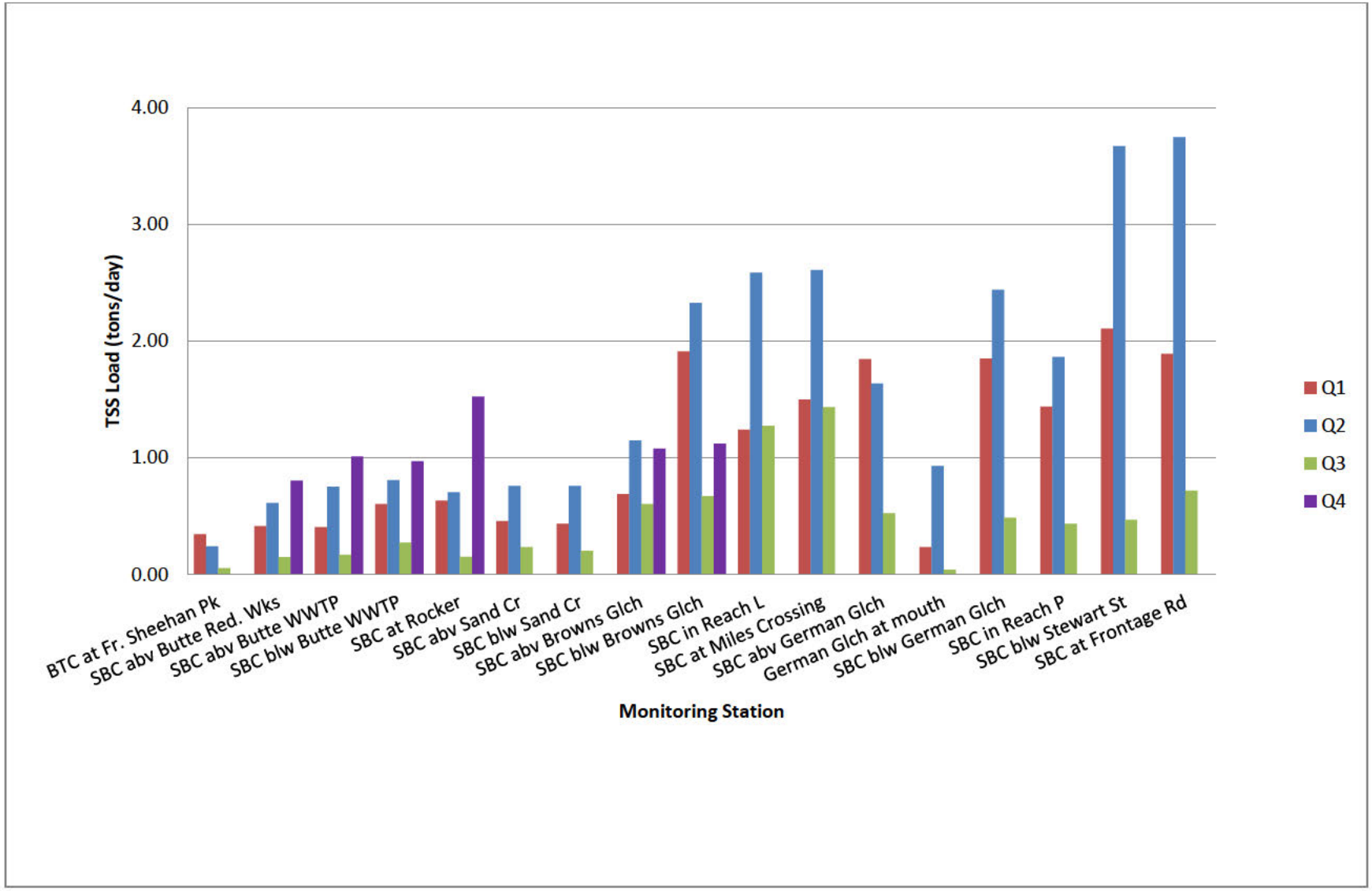

Figure 1-14. Total suspended sediment loads at Streamside Tailings Operable Unit monitoring stations, 2015. No bars indicate values less than the analytical reporting level.

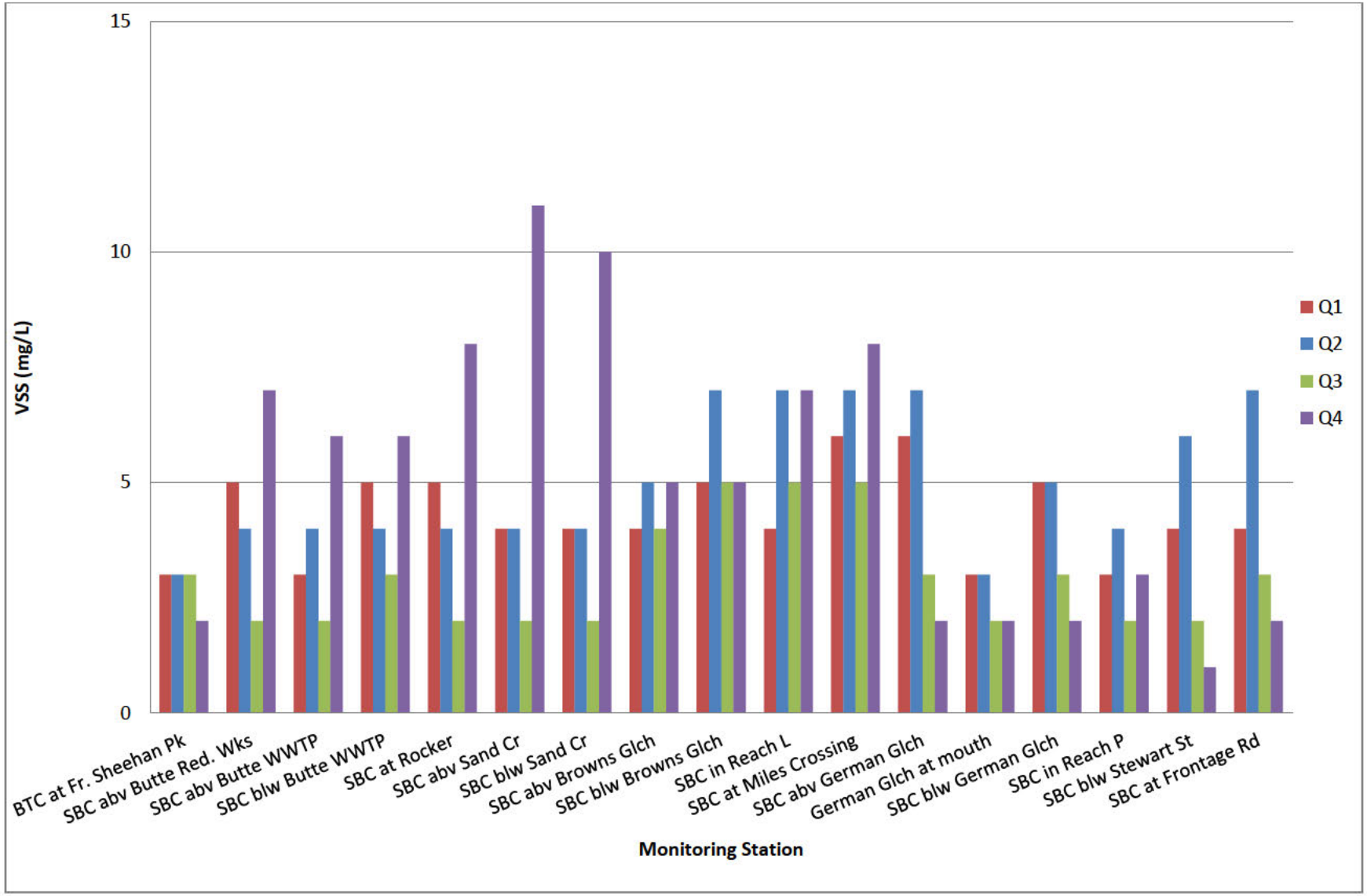

Figure 1-15. Volatile suspended sediment concentrations at Streamside Tailings Operable Unit monitoring stations, 2015.

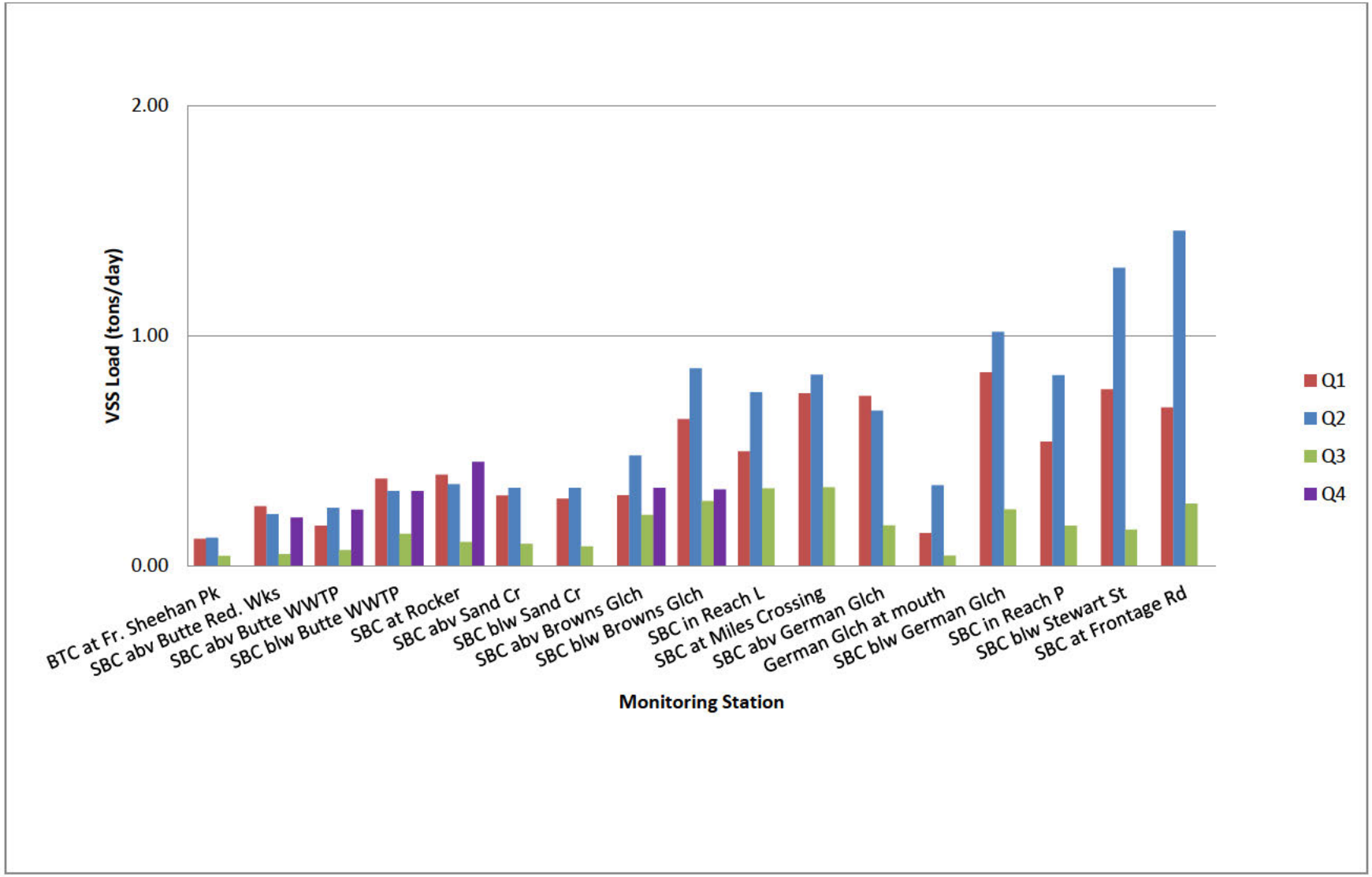

Figure 1-16. Volatile suspended sediment loads at Streamside Tailings Operable Unit monitoring stations, 2015. Missing bars at some sites are attributable to missing streamflow data.

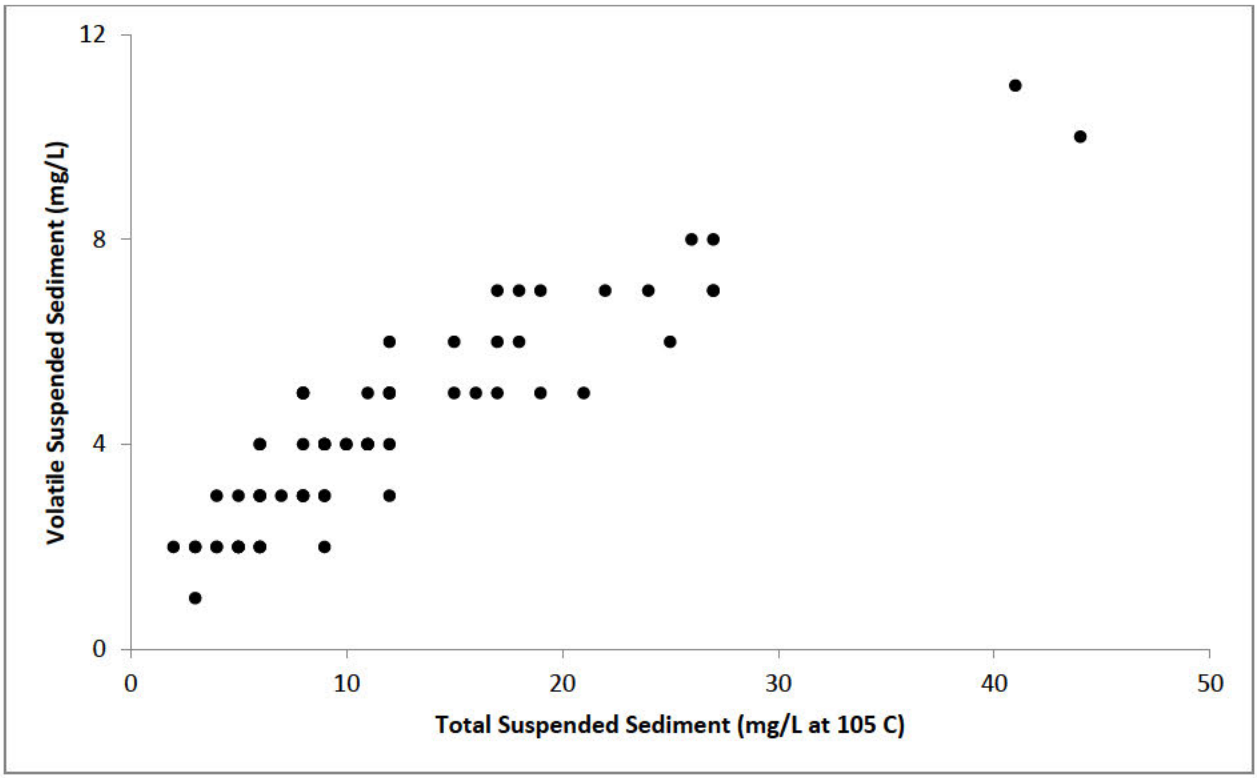

Figure 1-17. Relationship between volatile suspended sediment and total suspended sediment concentrations in the Streamside Tailings Operable Unit, 2015.

1.4.3 Common Ions

Common ion concentrations were monitored in the SSTOU in 2015 including water hardness [Figure 1-18], total [Figure 1-19] and bicarbonate alkalinity [Figure 1-20], calcium [Figure 1-21], magnesium [Figure 1-22], sodium [Figure 1-23], chloride [Figure 1-24] and sulfate [Figure 1-25]. Potassium is not presented because it represented a small proportion of dissolved ions.

Calcium was the dominant cation (representing more than 50% of the total cation milliequivalents) at all of the SSTOU monitoring stations during monitoring in 2015. Levels of water hardness in Silver Bow Creek during 2015 could be described as ranging from "hard" to "very hard" [Figure 1-18]. Water hardness in Blacktail Creek and German Gulch was consistently lower than in Silver Bow Creek [Figure 1-18]. Spatially, hardness increased in a downstream manner from Blacktail Creek at Father Sheehan Park to the Silver Bow Creek station above Browns Gulch, then stabilized downstream to above German Gulch [Figure 1-18]. Hardness then decreased from above to below German Gulch, then remained stable at all downstream Silver Bow Creek monitoring sites [Figure 1-18]. Water hardness at SSTOU monitoring stations during 2015 were generally similar to values recorded in 2013-2014 although with a higher frequency of values exceeding 200 mg/L during the Q3 and Q4 monitoring events in 2015.

Bicarbonate was the dominant anion at Blacktail Creek and German Gulch monitoring stations in 2015. All of the Silver Bow Creek monitoring stations were classified as either

bicarbonate or bicarbonate-sulfate type waters, depending on the season and station, from the standpoint of anionic composition. There was little spatial variation between mainstem SSTOU stations in total and bicarbonate alkalinity [Figure 1-19; Figure 1-20]. Blacktail Creek and German Gulch had somewhat lower alkalinity than mainstem stations [Figure 1-19; Figure 1-20]. Total and bicarbonate alkalinity increased from above to below the Butte WWTP discharge [Figure 1-19; Figure 1-20].

Calcium and magnesium, the principle contributors to water hardness, showed a similar spatial pattern to hardness. Calcium and magnesium concentrations increased from Blacktail Creek at Father Sheehan Park downstream to the Silver Bow Creek station above Browns Gulch and stabilized at downstream sites to above German Gulch [Figure 1-21; Figure 1-22]. Calcium and magnesium concentrations decreased from above to below German Gulch and then stabilized at the remaining downstream Silver Bow Creek monitoring sites [Figure 1-21; Figure 1-22]. Magnesium concentrations showed an atypical spatial trend in Q4 2015. Magnesium concentrations were elevated at Silver Bow Creek sites extending from above the Butte Reduction Works to below the Butte WWTP outfall [Figure 1-22].

In 2015, sodium ion concentrations had the same spatial pattern as in 2010-2014. Sodium concentrations increased from the Blacktail Creek station downstream to the Browns Gulch area, then stabilized downstream to the German Gulch confluence [Figure 1-23]. This trend was observed during all quarterly monitoring events [Figure 1-23]. The highest overall sodium concentrations were observed in Silver Bow Creek from above Browns Gulch to above German Gulch [Figure 1-23]. Sodium concentrations declined markedly in Silver Bow Creek from above to below the German Gulch inflow [Figure 1-23]. In Q1, a modest decline in sodium concentration was noted in Silver Bow Creek from above to below Browns Gulch [Figure 1-23]. The largest upstream to downstream increases in sodium concentration in Silver Bow Creek were noted in the reach of Silver Bow Creek from below Sand Creek to above Browns Gulch [Figure 1-23]. Similar to the atypical magnesium concentrations noted earlier, sodium concentrations at three Silver Bow Creek stations from above the Butte Reduction Works to below the Butte WWTP outfall were unusually high in Q4 2015 [Figure 1-23] but somewhat less pronounced compared to magnesium [Figure 1-22]. Sodium concentrations in 2015 were similar to concentrations measured in 2010-2014. Sodium concentrations were highest during the Q4 monitoring event and lowest at most monitoring stations during snowmelt runoff conditions in Q2 [Figure 1-23].

The spatial pattern of chloride concentrations [Figure 1-24] was similar to the pattern of sodium concentrations [Figure 1-23] except that the variation between sites was generally lower for chloride. Chloride concentrations increased from the Blacktail Creek station downstream to the station below the Butte WWTP outfall, then stabilized downstream to the below Sand Creek monitoring station [Figure 1-24]. Chloride concentrations then increased markedly from below Sand Creek to above Browns Gulch, declined modestly from above to below Browns Gulch, and stabilized downstream to the above German Gulch station [Figure 1-24]. Like the spatial trend for sodium [Figure 1-23], low chloride concentrations in German Gulch apparently diluted chloride concentrations in Silver Bow Creek below its confluence accounting for much lower and

similar chloride concentrations at all downstream Silver Bow Creek monitoring stations [Figure 1-24].

Chloride concentrations were lowest during snowmelt runoff conditions in Q2, ranging from less than the analytical reporting level in German Gulch to 43 mg/L in Silver Bow Creek above Browns Gulch [Figure 1-24]. The highest chloride concentrations during 2015 were observed in Q4 when streamflows were quite low, with concentrations ranging from 1 mg/L in German Gulch to a high of 95 mg/L in Silver Bow Creek above the Butte WWTP [Figure 1-24]. Increases in chloride concentrations were usually noted in Silver Bow Creek from above to below the Butte WWTP outfall [Figure 1-24]. Chloride concentrations in Q4 were atypically high at the same three Silver Bow Creek stations that showed elevated magnesium and sodium concentrations, Silver Bow Creek above the Butte Reduction Works, and above and below the Butte WWTP [Figure 1-24]. Aside from the elevated chloride concentrations between the Butte Reduction Works and below Butte WWTP sites in Q4, the largest increases in chloride concentrations in Silver Bow Creek were observed from below Sand Creek to above Browns Gulch during all four 2015 quarterly monitoring events [Figure 1-24]. Chloride concentrations in 2015 were within the range of concentrations measured during 2010-2014 with the exception of the three highest concentrations observed between the Butte Reduction Works and below Butte WWTP sites in Q4.

Sulfate concentrations increased several fold in Silver Bow Creek from above the Butte Reduction Works to the station above the Butte WWTP, increased at a lower rate downstream to the above Browns Gulch station, and then stabilized in the segment of Silver Bow Creek extending downstream to the German Gulch confluence [Figure 1-25]. Like the other common ions, sulfate concentrations fell markedly in Silver Bow Creek below German Gulch then stabilized or increased slightly from below German Gulch to the Frontage Road station [Figure 1-25]. Station to station increases in sulfate concentrations in Silver Bow Creek were greatest in Q3 and Q4 of 2015, and were generally smallest during snowmelt runoff in in Q2 [Figure 1-25]. Sulfate was the second most prevalent anion at SSTOU monitoring stations behind bicarbonate. Sulfate ion concentrations measured in 2015 were within the range of observations made during the 2010-2014 monitoring years.

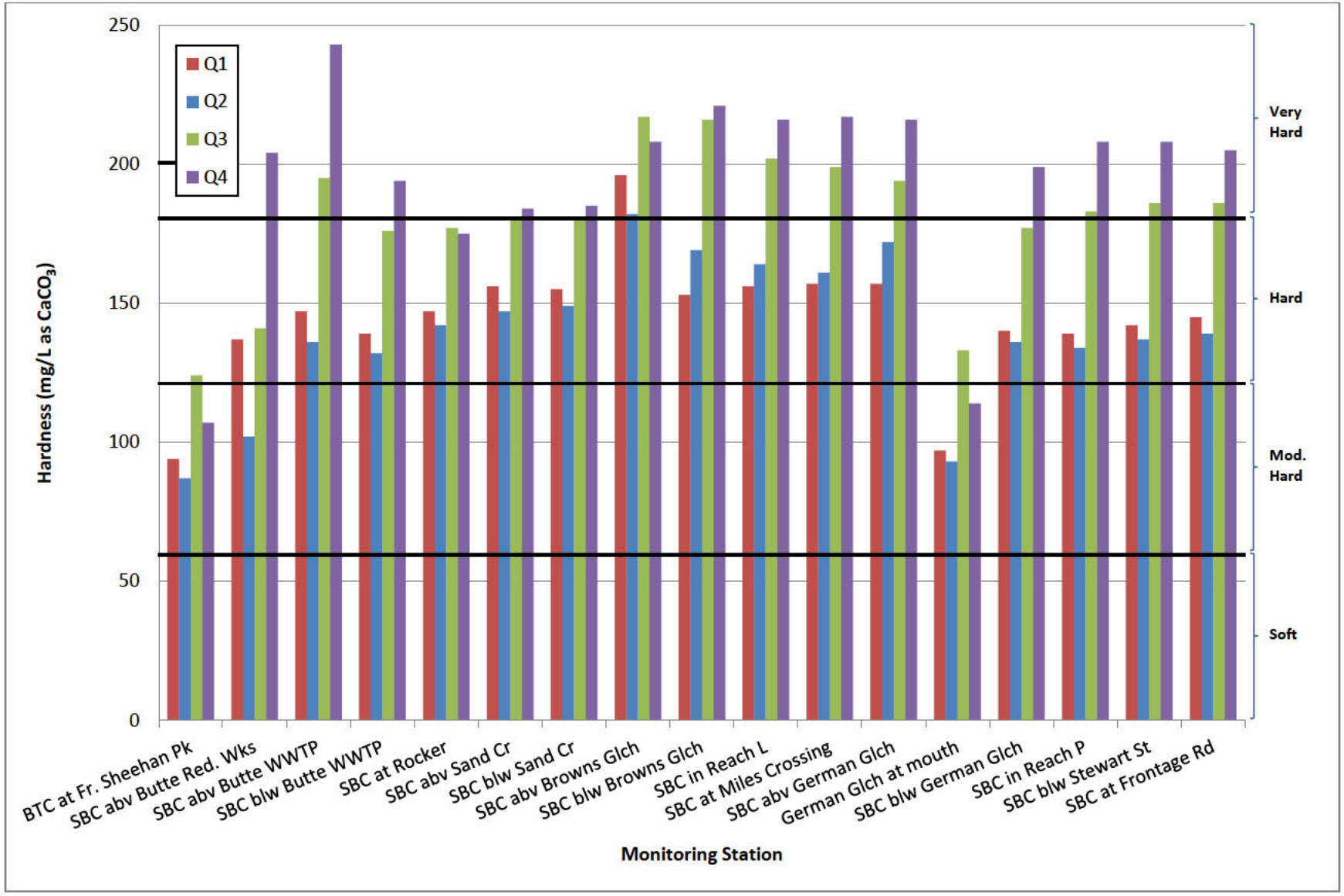

Figure 1-18. Water hardness at Streamside Tailings Operable Unit monitoring stations, 2015.

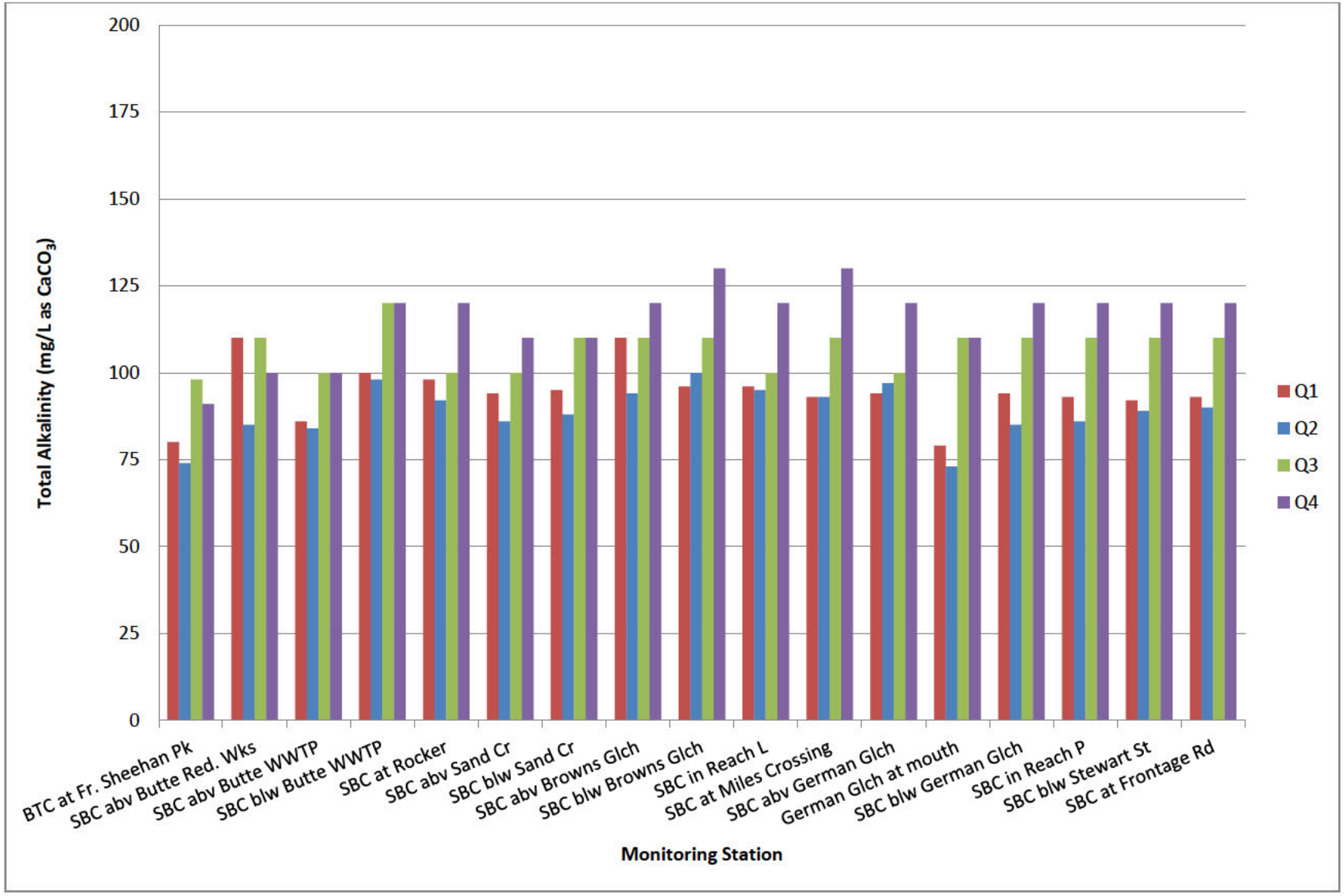

Figure 1-19. Total alkalinity at Streamside Tailings Operable Unit monitoring stations, 2015.

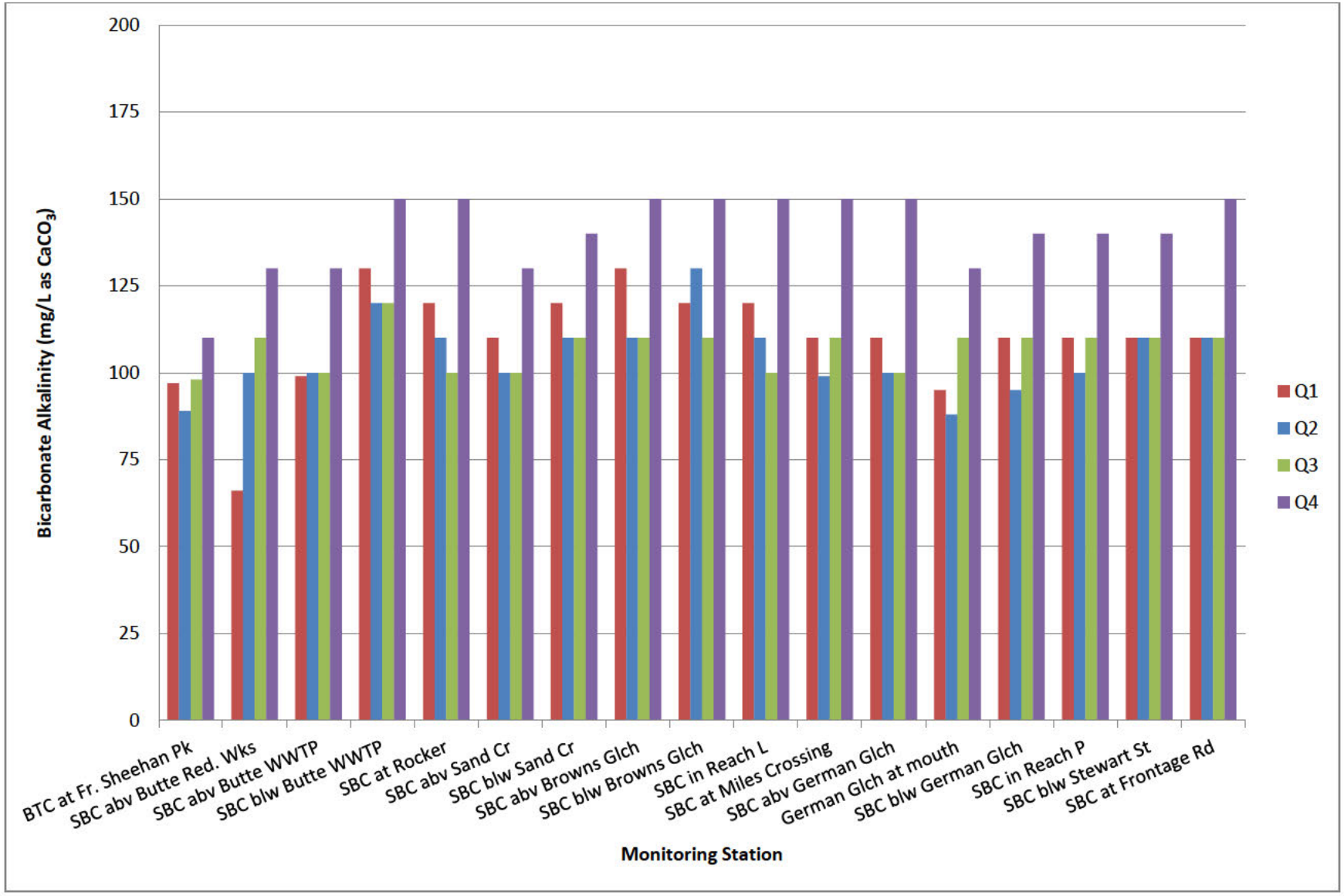

Figure 1-20. Bicarbonate alkalinity at Streamside Tailings Operable Unit monitoring stations, 2015.

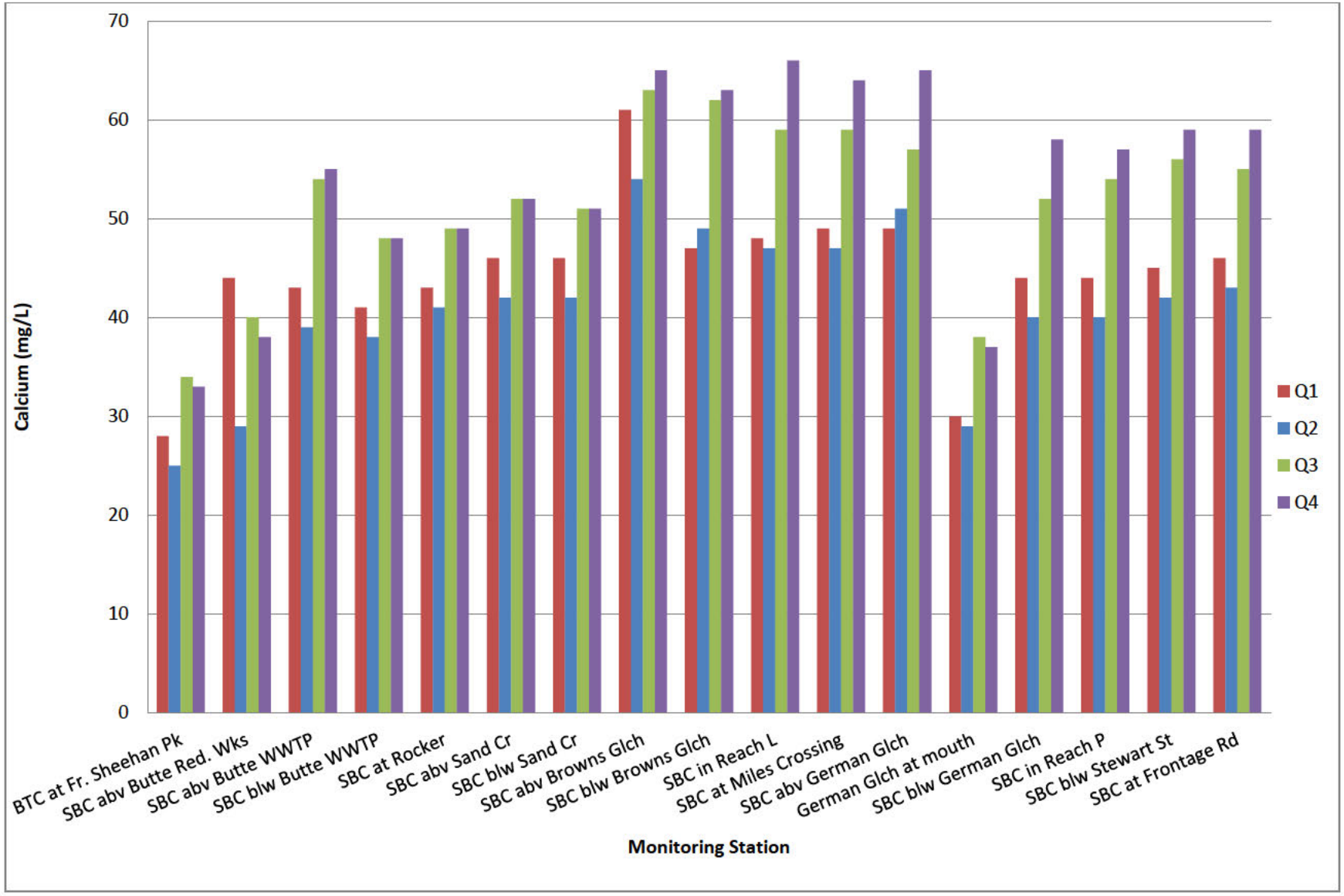

Figure 1-21. Calcium concentrations at Streamside Tailings Operable Unit monitoring stations, 2015.

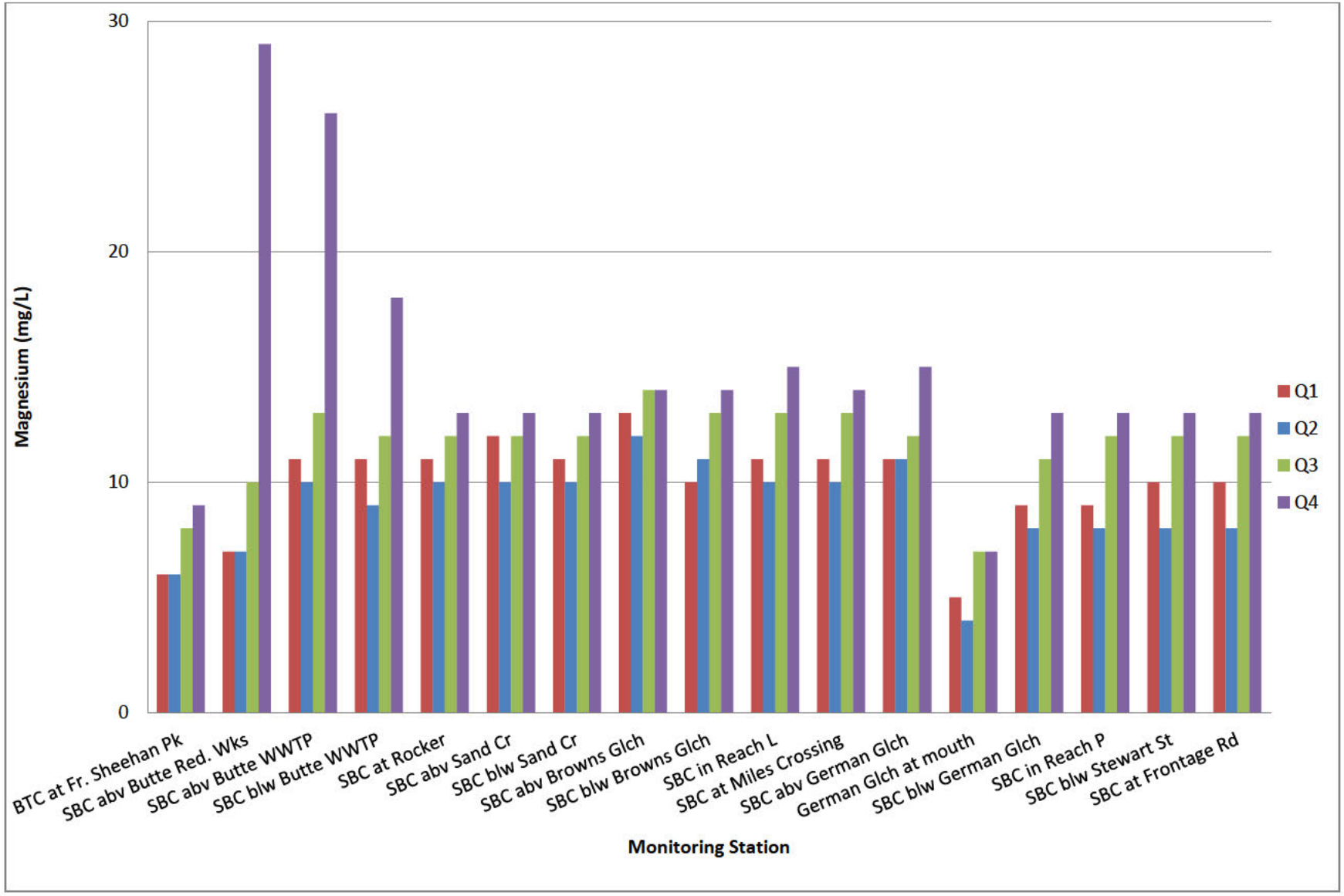

Figure 1-22. Magnesium concentrations at Streamside Tailings Operable Unit monitoring stations, 2015.

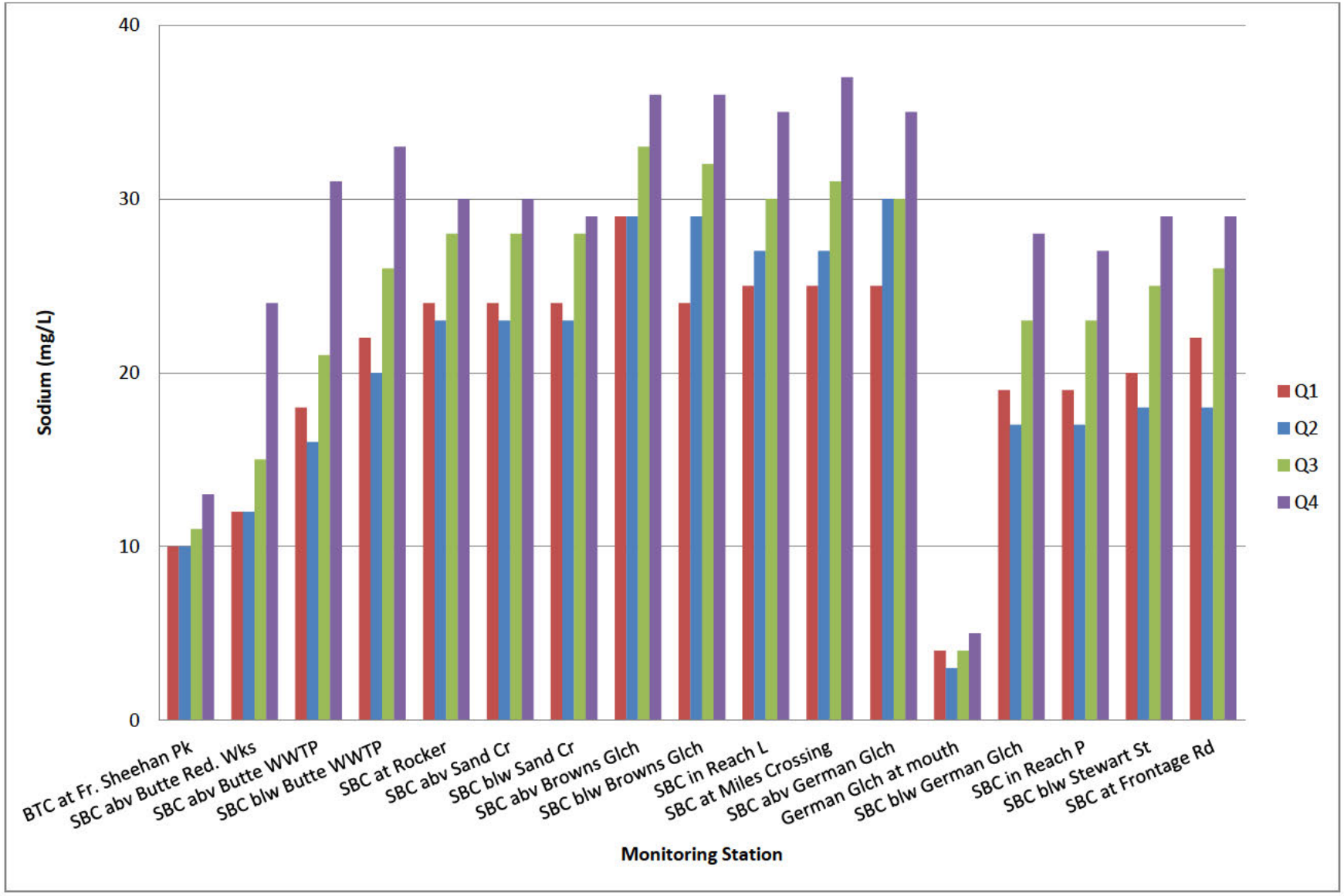

Figure 1-23. Sodium concentrations at Streamside Tailings Operable Unit monitoring stations, 2015.

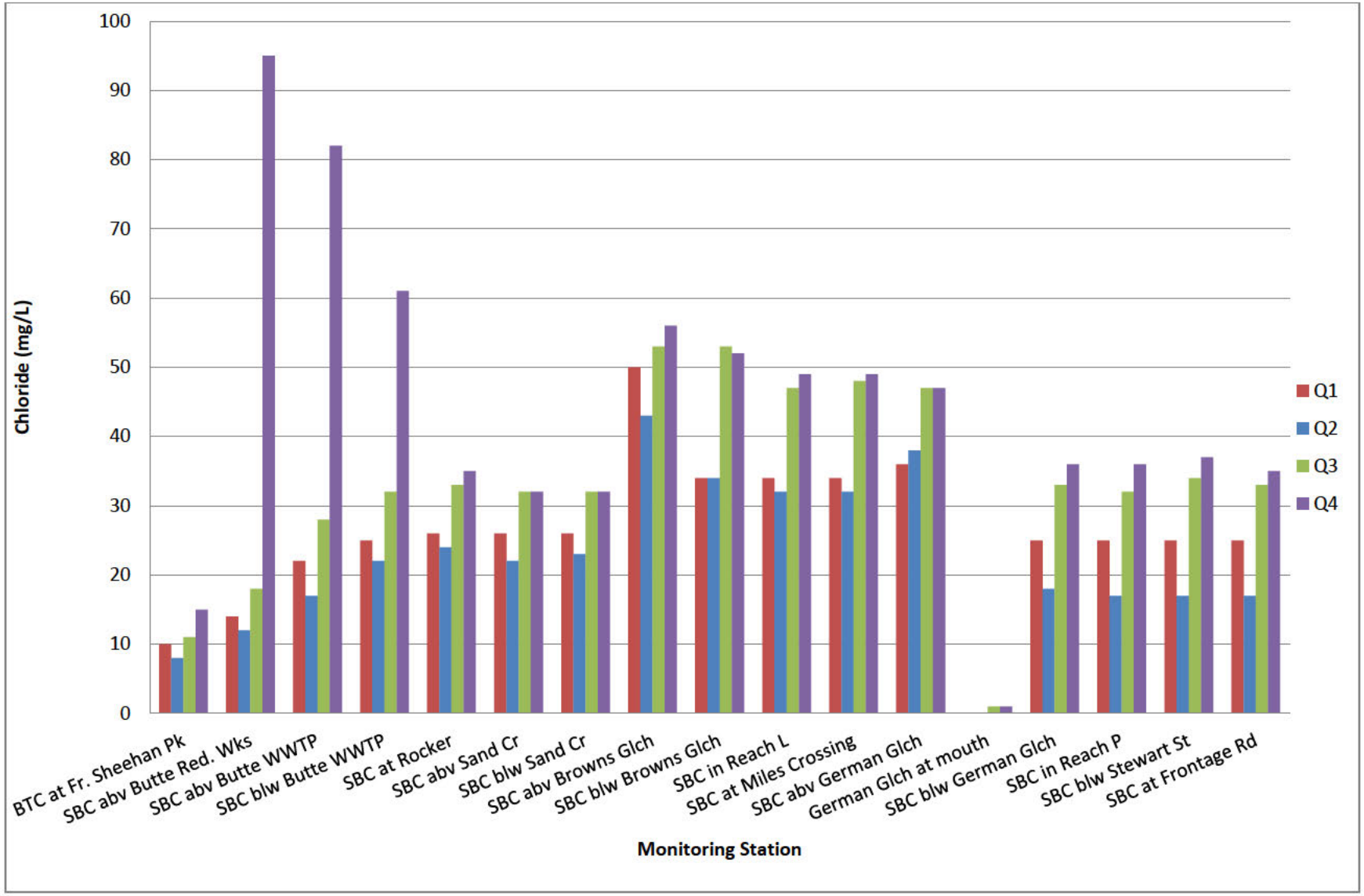

Figure 1-24. Chloride concentrations at Streamside Tailings Operable Unit monitoring stations, 2015. Missing bars indicate concentrations below the analytical reporting limit.

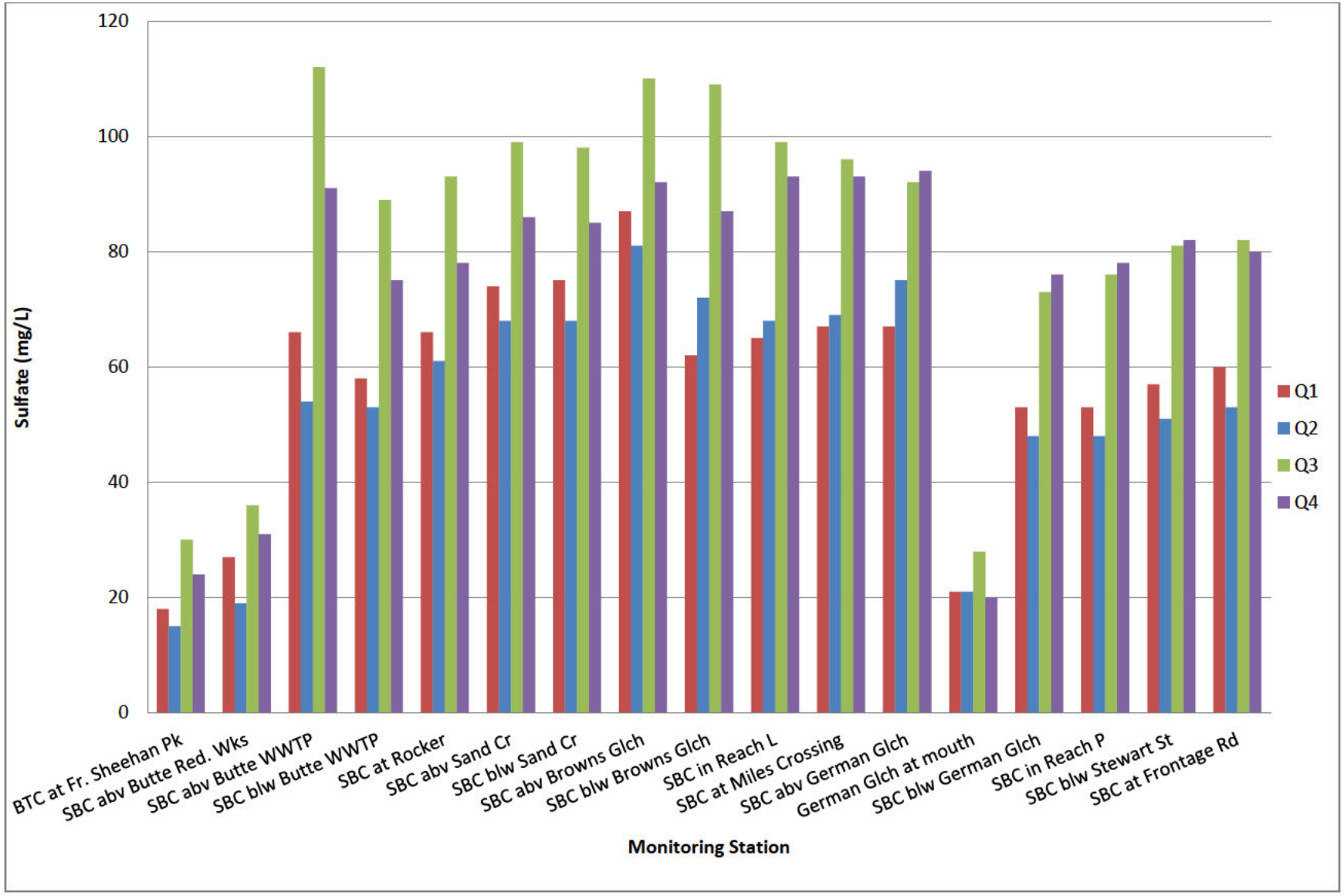

Figure 1-25. Sulfate concentrations at Streamside Tailings Operable Unit monitoring stations, 2015.

1.4.4 Nutrients

1.4.4.1 Dissolved Organic Carbon

Dissolved organic carbon concentrations in the SSTOU in 2015 ranged from 1.6-7.7 mg/L [Table 1-7]. At all mainstem sample sites, dissolved organic carbon concentrations were highest in Q2 and lowest at nearly all sites in Q4 [Figure 1-26]. Dissolved organic carbon concentrations increased sharply at the WWTP in all quarters and at Browns Gulch in Q1 and Q2 [Figure 1-26]. Dissolved organic carbon concentrations decreased slightly (by approximately 10%) at German Gulch during all quarters [Figure 1-26].

Table 1-7. Dissolved organic carbon concentrations (mg/L) at Streamside Tailings Operable Unit monitoring stations, 2015.

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	4.4	5.8	2.1	2.2
SS-05A	Silver Bow Creek above Butte Reduction Works	3.7	5.2	2.3	2.9
SS-06G	Silver Bow Creek above WWTP	3.4	4.6	2.8	2.4
SS-07	Silver Bow Creek below WWTP	5.1	6.3	5.2	4.6
SS-08	Silver Bow Creek at Rocker	5.7	6.7	4.7	4.5
SS-10A	Silver Bow Creek above Sand Creek	4.4	6.0	4.3	3.4
SS-10B	Silver Bow Creek below Sand Creek	4.1	6.0	4.3	3.5
SS-11C	Silver Bow Creek above Browns Gulch	4.1	6.2	4.1	3.5
SS-11D	Silver Bow Creek below Browns Gulch	4.8	7.7	4.0	3.5
SS-13	Silver Bow Creek in Reach L	4.9	6.5	3.8	3.3
SS-14	Silver Bow Creek at Miles Crossing	4.6	6.0	4.1	3.4
SS-15A	Silver Bow Creek above German Gulch	5.0	6.1	4.0	3.4
SS-15G	German Gulch near confluence	3.2	5.2	1.9	1.6
SS-15B	Silver Bow Creek below German Gulch	4.5	5.4	3.6	3.0
SS-16	Silver Bow Creek in Reach P near Fairmont	4.5	5.6	3.5	2.9
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	4.6	5.7	3.6	2.8
SS-19	Silver Bow Creek at Frontage Road	4.6	5.7	3.5	2.7

1.4.4.2 Total Nitrogen

Total nitrogen concentrations in the SSTOU in 2015 ranged from <0.05-32.9 mg/L [Table 1-8]. Concentrations of total nitrogen were high throughout Silver Bow Creek, particularly at monitoring stations located downstream from the Butte WWTP outfall [Figure 1-27]. Total nitrogen concentrations typically increased abruptly from above to below the Butte WWTP, and then declined with distance downstream from the WWTP [Figure 1-27]. However, this trend of

gradual downstream decrease in total nitrogen concentrations was interrupted by local variability at particular sites during particular sample periods [Figure 1-27].

The lowest total nitrogen concentrations in 2015 were observed during the Q2 spring runoff monitoring event when streamflows were highest [Figure 1-27]. The highest total nitrogen concentrations were generally observed during the Q3 monitoring event [Figure 1-27]. In Q4, total nitrogen concentrations at four consecutive Silver Bow Creek sites immediately below the Butte WWTP were extremely high (18.8-32.9 mg/L) [Figure 1-27]. Those four samples had total nitrogen concentrations which were the highest of any SSTOU samples since 2010 by more than double.

In Q3, total nitrogen concentrations exceeded the applicable standard [MDEQ, 2014] at all sample sites with the exception of the German Gulch sample site [Table 1-8].

Total nitrogen concentrations in particular sites during particular quarters in 2015 were similar to the concentrations observed during prior monitoring years from 2010-2014, with the exception of the very high concentrations below the WWTP in Q4 2015.

Most of the total nitrogen loading to Silver Bow Creek occurred in the reach from above to below the Butte WWTP [Figure 1-28]. The largest total nitrogen loads were observed in Silver Bow Creek at the four sites immediately downstream from the WWTP in Q3 [Figure 1-28]. Large loads were also observed in Q1 at the four Silver Bow Creek sites extending from below Browns Gulch to above German Gulch [Figure 1-28]. Additional smaller increases in total nitrogen loading were apparent within the reach of Silver Bow Creek between Blacktail Creek and the station above the Butte WWTP (all quarters) [Figure 1-28]. With the exception of the very elevated loads in Q3 at the four sites immediately downstream from the WWTP, total nitrogen loading patterns in Silver Bow Creek in 2015 were similar to patterns observed in 2010-2014.

Table 1-8. Total nitrogen concentrations (mg/L) at Streamside Tailings Operable Unit monitoring stations, 2015.

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	0.66	0.55	1.30	1.15
SS-05A	Silver Bow Creek above Butte Reduction Works	1.00	0.74	2.50	1.69
SS-06G	Silver Bow Creek above WWTP	1.09	0.88	1.46	1.73
SS-07	Silver Bow Creek below WWTP	5.40	4.10	32.90	5.90
SS-08	Silver Bow Creek at Rocker	4.50	4.20	24.90	4.90
SS-10A	Silver Bow Creek above Sand Creek	3.06	2.68	18.80	3.73
SS-10B	Silver Bow Creek below Sand Creek	2.99	2.68	18.80	4.70
SS-11C	Silver Bow Creek above Browns Gulch	3.20	2.83	3.30	4.70
SS-11D	Silver Bow Creek below Browns Gulch	6.10	2.85	6.50	4.60
SS-13	Silver Bow Creek in Reach L	6.10	1.17	5.80	4.30
SS-14	Silver Bow Creek at Miles Crossing	5.10	1.85	6.20	5.10
SS-15A	Silver Bow Creek above German Gulch	6.00	1.93	5.70	5.10
SS-15G	German Gulch near confluence	0.15	0.09	ND	0.18
SS-15B	Silver Bow Creek below German Gulch	1.88	1.20	4.20	3.50
SS-16	Silver Bow Creek in Reach P near Fairmont	1.94	1.18	1.88	3.41
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	2.00	1.14	3.70	3.41
SS-19	Silver Bow Creek at Frontage Road	1.86	1.02	1.79	2.96

Exceeds the summertime base numeric nutrient standard for total nitrogen [MDEQ, 2014].

1.4.4.3 Nitrate plus Nitrite Nitrogen

Nitrate plus nitrite nitrogen concentrations in the SSTOU in 2015 ranged from <0.02-3.62 mg/L [Table 1-9]. Nitrate plus nitrite nitrogen concentrations were elevated during the 2015 monitoring year and followed a similar spatial pattern to total nitrogen [Figure 1-27; Figure 1-29]. Nitrate plus nitrite nitrogen concentrations tended to be high at the upstream Blacktail Creek and Silver Bow Creek stations [Figure 1-29]. However, concentrations increased markedly at several stations below the Butte WWTP discharge, particularly from Rocker to above German Gulch [Figure 1-29]. Nitrate plus nitrite nitrogen concentrations declined below the German Gulch inflow then remained similar downstream to the lower-most Frontage Road monitoring site [Figure 1-29]. The highest nitrate plus nitrite nitrogen concentrations at the stations located below the WWTP discharge were almost always observed in Q3 [Figure 1-29]. Nitrate plus nitrite concentrations at stations above the WWTP were usually highest in Q4 [Figure 1-29]. Nitrate plus nitrite concentrations at most of the monitoring stations were lowest in Q2 when streamflows were highest [Figure 1-29]. Nitrate plus nitrite nitrogen concentrations in German Gulch at its mouth were consistently low, frequently below the minimum analytical reporting limit, and much lower than at all of the Silver Bow Creek and Blacktail Creek

monitoring sites [Table 1-9]. Spatial patterns in nitrate plus nitrite nitrogen concentrations in 2015, and overall magnitude of the concentrations, were similar to those observed in 2010-2014.

Table 1-9. Nitrate plus nitrite nitrogen concentrations (mg/L) at Streamside Tailings Operable Unit monitoring stations, 2015.

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	0.39	0.30	1.18	1.07
SS-05A	Silver Bow Creek above Butte Reduction Works	0.61	0.45	1.13	1.22
SS-06G	Silver Bow Creek above WWTP	0.80	0.58	1.32	1.59
SS-07	Silver Bow Creek below WWTP	0.70	0.49	1.02	1.14
SS-08	Silver Bow Creek at Rocker	1.26	1.58	3.62	1.56
SS-10A	Silver Bow Creek above Sand Creek	1.50	1.71	3.15	1.92
SS-10B	Silver Bow Creek below Sand Creek	1.47	1.69	3.01	1.84
SS-11C	Silver Bow Creek above Browns Gulch	1.45	1.61	2.71	1.72
SS-11D	Silver Bow Creek below Browns Gulch	0.99	1.28	2.63	1.69
SS-13	Silver Bow Creek in Reach L	1.33	1.34	2.60	1.85
SS-14	Silver Bow Creek at Miles Crossing	1.22	1.10	2.61	1.97
SS-15A	Silver Bow Creek above German Gulch	1.20	1.29	2.59	2.23
SS-15G	German Gulch near confluence	0.02	ND	ND	0.09
SS-15B	Silver Bow Creek below German Gulch	0.87	0.68	1.96	1.77
SS-16	Silver Bow Creek in Reach P near Fairmont	0.94	0.69	1.68	1.83
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	1.16	0.60	1.71	1.88
SS-19	Silver Bow Creek at Frontage Road	1.20	0.60	1.54	1.78

ND Not detected at analytical reporting limit.

1.4.4.4 Total Ammonia

Ammonia concentrations in the SSTOU in 2015 ranged from <0.05-5.30 mg/L [Table 1-10]. Ammonia concentrations were consistently elevated at many of the stations downstream from the Butte WWTP discharge during each quarterly monitoring event in 2015 [Figure 1-30]. The highest concentrations of ammonia at stations below the WWTP were most commonly observed in Q4 when streamflows were relatively low and water temperatures were cold [Table 1-11].

In 2015, total ammonia concentrations exceeded the pH- and temperature-dependent chronic ALS for early life stages of salmonids [MDEQ, 2012a] at the station immediately below the Butte WWTP discharge (Q3, Q4) and at Rocker (Q4) [Table 1-11]. No exceedances of the acute ALS [MDEQ, 2012a] were documented at any of the monitoring stations during any of the four quarterly monitoring events in 2015. Overall, the frequency of excursions of the chronic and acute ALS for ammonia in Silver Bow Creek in 2015 was lower than in 2012 (5 chronic ALS

exceedances), 2013 (10 chronic ALS exceedances and 1 acute exceedance), or 2014 (5 chronic ALS exceedances).

Table 1-10. Total ammonia concentrations (mg/L) at Streamside Tailings Operable Unit monitoring stations, 2015.

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	ND	ND	ND	ND
SS-05A	Silver Bow Creek above Butte Reduction Works	ND	ND	ND	ND
SS-06G	Silver Bow Creek above WWTP	ND	ND	ND	ND
SS-07	Silver Bow Creek below WWTP	3.40	3.00	5.30	4.00
SS-08	Silver Bow Creek at Rocker	2.20	1.68	0.94	3.00
SS-10A	Silver Bow Creek above Sand Creek	0.78	0.26	0.36	1.61
SS-10B	Silver Bow Creek below Sand Creek	0.77	0.26	0.54	1.74
SS-11C	Silver Bow Creek above Browns Gulch	0.96	0.41	0.09	2.00
SS-11D	Silver Bow Creek below Browns Gulch	0.71	0.67	0.07	1.90
SS-13	Silver Bow Creek in Reach L	0.38	ND	ND	1.82
SS-14	Silver Bow Creek at Miles Crossing	0.22	ND	0.15	2.00
SS-15A	Silver Bow Creek above German Gulch	0.47	ND	ND	1.70
SS-15G	German Gulch near confluence	ND	ND	ND	ND
SS-15B	Silver Bow Creek below German Gulch	0.45	ND	ND	1.30
SS-16	Silver Bow Creek in Reach P near Fairmont	0.45	ND	ND	0.97
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	0.22	ND	ND	0.99
SS-19	Silver Bow Creek at Frontage Road	0.17	ND	ND	0.88

ND Not detected at analytical reporting limit.

Exceeds chronic aquatic life standard [MDEQ, 2012a].

Table 1-11. Ammonia toxicity for samples from the Streamside Tailings Operable Unit, 2015. Aquatic life standards are dependent on pH and water temperature at the time samples are collected [MDEQ, 2012a].

Site ID	Station	Sample Quarter	Temp (C)	pH	Aquatic Life Standard (mg/L)		Ammonia (mg/L)
					Chronic	Acute	
SS-01	Blacktail Creek at Father Sheehan Park	Q1	9.74	7.71	3.48	9.48	ND
		Q2	11.42	7.91	2.69	6.64	ND
		Q3	---	---	---	---	ND
		Q4	3.72	7.72	3.44	9.32	ND
SS-05A	Silver Bow Creek above Butte Reduction Works	Q1	10.64	9.25	0.25	062	ND
		Q2	11.70	8.29	1.46	3.21	ND
		Q3	---	---	---	---	ND
		Q4	4.23	7.88	2.81	7.02	ND
SS-06G	Silver Bow Creek above WWTP	Q1	9.81	8.21	1.68	3.75	ND
		Q2	12.33	8.71	0.67	1.45	ND
		Q3	---	---	---	---	ND
		Q4	3.56	8.43	1.14	2.45	ND
SS-07	Silver Bow Creek below WWTP	Q1	9.96	7.40	4.70	15.34	3.40
		Q2	12.41	7.55	4.13	12.31	3.00
		Q3	15.80	7.50 (E)	13.28	3.98	5.30
		Q4	7.29	7.75	3.32	8.85	4.00
SS-08	Silver Bow Creek at Rocker	Q1	9.82	7.36	4.84	16.20	2.20
		Q2	11.61	7.70	3.52	9.64	1.68
		Q3	14.40	7.19	5.39	19.95	0.94
		Q4	5.46	7.98	2.43	5.83	3.00
SS-10A	Silver Bow Creek above Sand Creek	Q1	7.35	7.67	3.65	10.14	0.78
		Q2	11.64	8.24	1.60	3.54	0.26
		Q3	12.80	7.42	4.62	14.92	0.36
		Q4	1.21	7.89	2.77	6.89	1.61
SS-10B	Silver Bow Creek below Sand Creek	Q1	7.02	7.30	5.05	17.51	0.77
		Q2	11.49	8.23	1.63	3.61	0.26
		Q3	12.20	7.41	4.66	15.13	0.54
		Q4	0.73	7.87	2.85	7.15	1.74
SS-11C	Silver Bow Creek above Browns Gulch	Q1	5.54	7.27	5.14	18.17	0.96
		Q2	10.24	7.96	2.51	6.05	0.41
		Q3	11.30	7.89	2.77	6.89	0.09
		Q4	0.00	7.70	3.52	9.64	2.00
SS-11D	Silver Bow Creek below Browns Gulch	Q1	4.47	7.12	5.59	21.50	0.71
		Q2	9.82	7.74	3.36	9.01	0.67
		Q3	10.60	7.69	3.56	9.81	0.07
		Q4	0.00	7.58	4.01	11.74	1.90
SS-13	Silver Bow Creek in	Q1	8.36	7.82	3.04	7.82	0.38

	Reach L	Q2	13.77	8.91	0.46	1.02	ND
		Q3	14.70	8.36	1.28	2.80	ND
		Q4	0.00	7.74	3.36	9.01	1.82
SS-14	Silver Bow Creek at Miles Crossing	Q1	8.26	7.96	2.51	6.05	0.22
		Q2	13.64	9.17	0.28	0.69	ND
		Q3	15.60	8.60	0.77	1.77	0.15
		Q4	0.00	7.74	3.36	9.01	2.00
SS-15A	Silver Bow Creek above German Gulch	Q1	7.98	8.16	1.83	4.13	0.47
		Q2	13.68	9.27	0.24	0.60	ND
		Q3	14.20	8.77	0.60	1.30	ND
		Q4	0.00	7.66	3.69	10.31	1.70
SS-15G	German Gulch near confluence	Q1	5.95	7.37	4.81	15.98	ND
		Q2	8.22	8.27	1.52	3.34	ND
		Q3	9.60	8.13	1.92	4.38	ND
		Q4	0.00	8.29	1.46	3.21	ND
SS-15B	Silver Bow Creek below German Gulch	Q1	6.97	7.78	3.20	8.40	0.45
		Q2	10.78	9.07	0.34	0.80	ND
		Q3	11.70	8.50	1.00	2.14	ND
		Q4	0.00	7.66	3.69	10.31	1.30
SS-16	Silver Bow Creek in Reach P near Fairmont	Q1	5.00	7.48	4.40	13.68	0.45
		Q2	8.94	8.87	0.49	1.09	ND
		Q3	9.40	8.11	1.99	4.55	ND
		Q4	0.00	7.90	2.73	6.77	0.97
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	Q1	4.43	7.39	4.73	15.55	0.22
		Q2	8.27	8.72	0.66	1.42	ND
		Q3	9.00	8.17	1.80	4.05	ND
		Q4	0.00	7.83	3.00	7.68	0.99
SS-19	Silver Bow Creek at Frontage Road	Q1	4.11	7.09	5.67	22.16	0.17
		Q2	7.50	8.35	1.31	2.86	ND
		Q3	8.00	7.83	3.00	7.68	ND
		Q4	0.00	7.83	3.00	7.68	0.88

ND Not detected at analytical reporting limit.

(E) Estimated value.

Exceeds chronic aquatic life standard [MDEQ, 2012a].

1.4.4.5 Total Phosphorus

Total phosphorous concentrations in the SSTOU in 2015 ranged from <0.024-0.700 mg/L [Table 1-12]. Total phosphorus concentrations in Silver Bow Creek increased from four to twelve times from above to immediately below the WWTP outfall [Figure 1-31]. Peak total phosphorus concentrations during 2015 were observed in Silver Bow Creek from below the Butte WWTP outfall to above German Gulch, while concentrations were consistently lower in Silver Bow

Creek downstream from the German Gulch confluence Figure 1-31. German Gulch has had consistently low total phosphorus concentrations each year from 2010-2015 compared to the Silver Bow Creek and Blacktail Creek monitoring stations. The highest total phosphorus concentrations at most stations (7 of 17 sites) in 2015 were observed in Q3, followed by Q1 (5 of 17 sites, and Q4 (4 of 17 sites). The lowest concentrations at most stations generally occurred in either Q1 or Q2.

Total phosphorus concentrations at most SSTOU monitoring stations during the relevant Q3 2015 period consistently exceeded the MDEQ standard (0.030 mg/L) [Table 1-12]. The spatial and temporal trends for total phosphorus at SSTOU monitoring stations in 2015, and the frequency of exceedances of the MDEQ [2014] standards, followed similar patterns to those observed in 2010-2014.

Load estimates for total phosphorus indicated large-scale increases in total phosphorus loading in Silver Bow Creek from above to immediately below the Butte-Silver Bow WWTP [Figure 1-32]. Total phosphorus loads then tended to stabilize, with usually minor site-to-site variations, at Silver Bow Creek sites extending from below the WWTP discharge downstream to the Frontage Road [Figure 1-32]. One exception was during the spring snowmelt runoff monitoring event in Q2 which showed the highest loads at the Silver Bow Creek sites above and below Browns Gulch [Figure 1-32]. Total phosphorus loading patterns in Silver Bow Creek in 2015 were comparable to those observed in 2010-2014.

Table 1-12. Total phosphorus concentrations (mg/L) at Streamside Tailings Operable Unit monitoring stations, 2015.

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	0.083	0.077	0.074	0.085
SS-05A	Silver Bow Creek above Butte Reduction Works	0.112	0.096	0.086	0.135
SS-06G	Silver Bow Creek above WWTP	0.071	0.082	0.059	0.086
SS-07	Silver Bow Creek below WWTP	0.399	0.339	0.700	0.410
SS-08	Silver Bow Creek at Rocker	0.346	0.319	0.494	0.298
SS-10A	Silver Bow Creek above Sand Creek	0.284	0.339	0.425	0.306
SS-10B	Silver Bow Creek below Sand Creek	0.290	0.329	0.412	0.334
SS-11C	Silver Bow Creek above Browns Gulch	0.334	0.365	0.398	0.306
SS-11D	Silver Bow Creek below Browns Gulch	0.268	0.389	0.354	0.293
SS-13	Silver Bow Creek in Reach L	0.273	0.293	0.276	0.327
SS-14	Silver Bow Creek at Miles Crossing	0.269	0.288	0.315	0.302
SS-15A	Silver Bow Creek above German Gulch	0.320	0.320	0.263	0.248
SS-15G	German Gulch near confluence	0.036	0.025	0.024	0.035
SS-15B	Silver Bow Creek below German Gulch	0.245	0.159	0.203	0.200
SS-16	Silver Bow Creek in Reach P near Fairmont	0.237	0.152	0.205	0.198
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	0.205	0.143	0.205	0.162
SS-19	Silver Bow Creek at Frontage Road	0.194	0.130	0.210	0.160

Exceeds the summertime base numeric nutrient standard for total phosphorus [MDEQ, 2014].

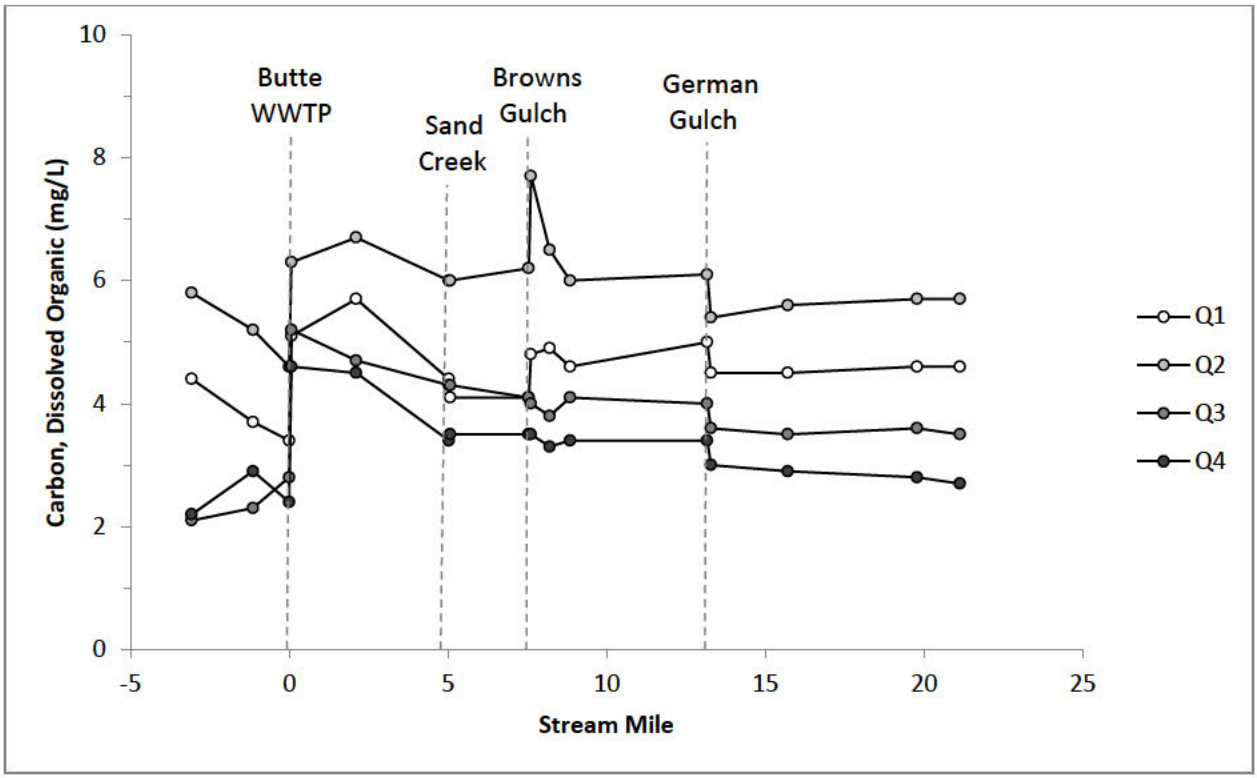

Figure 1-26. Dissolved organic carbon concentrations in the Streamside Tailings Operable Unit (SSTOU) monitoring stations, 2015. German Gulch samples are not depicted. The SSTOU begins at stream mile 0; positive numbers are downstream. Surface water inputs are highlighted by dashed vertical lines.

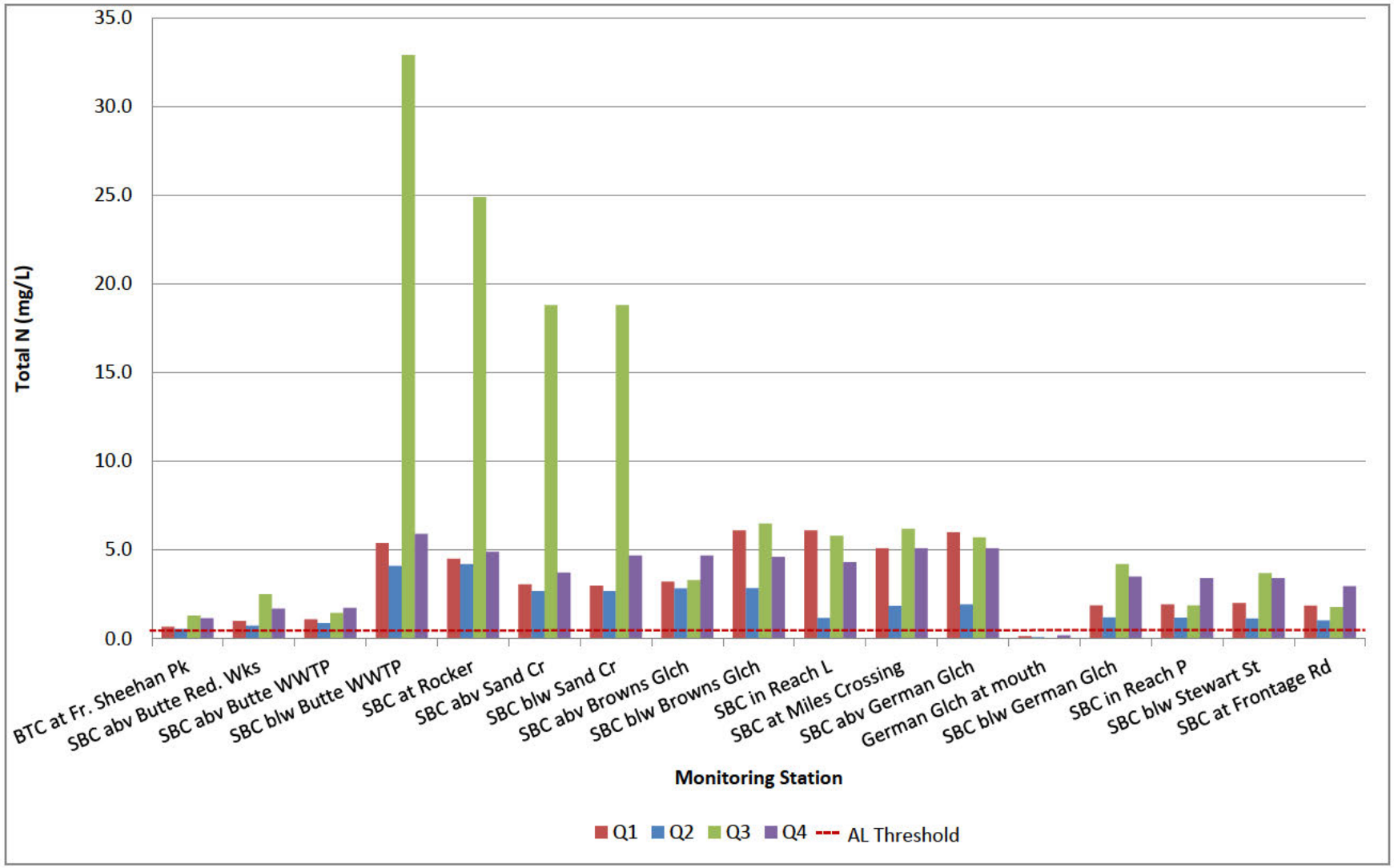

Figure 1-27. Total nitrogen concentrations at Streamside Tailings Operable Unit monitoring stations, 2015. The red dashed line represents the base numeric total nitrogen nutrient standard [MDEQ, 2014]. Missing bars indicate concentrations below the analytical reporting limit.

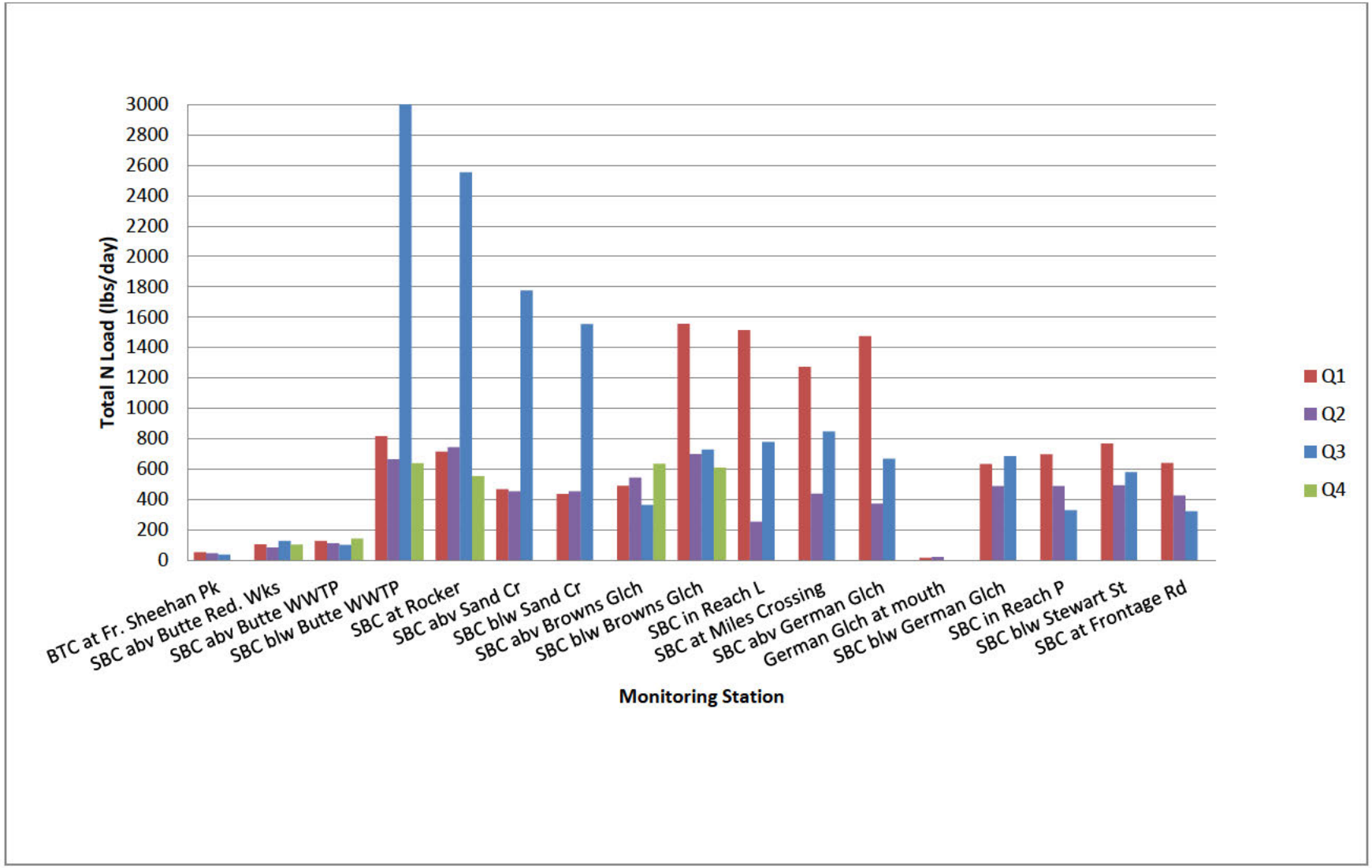

Figure 1-28. Total nitrogen loads at Streamside Tailings Operable Unit monitoring stations, 2015. Missing bars at some sites are attributable to missing streamflow data or, in the case of German Gulch, values less than the analytical reporting limit.

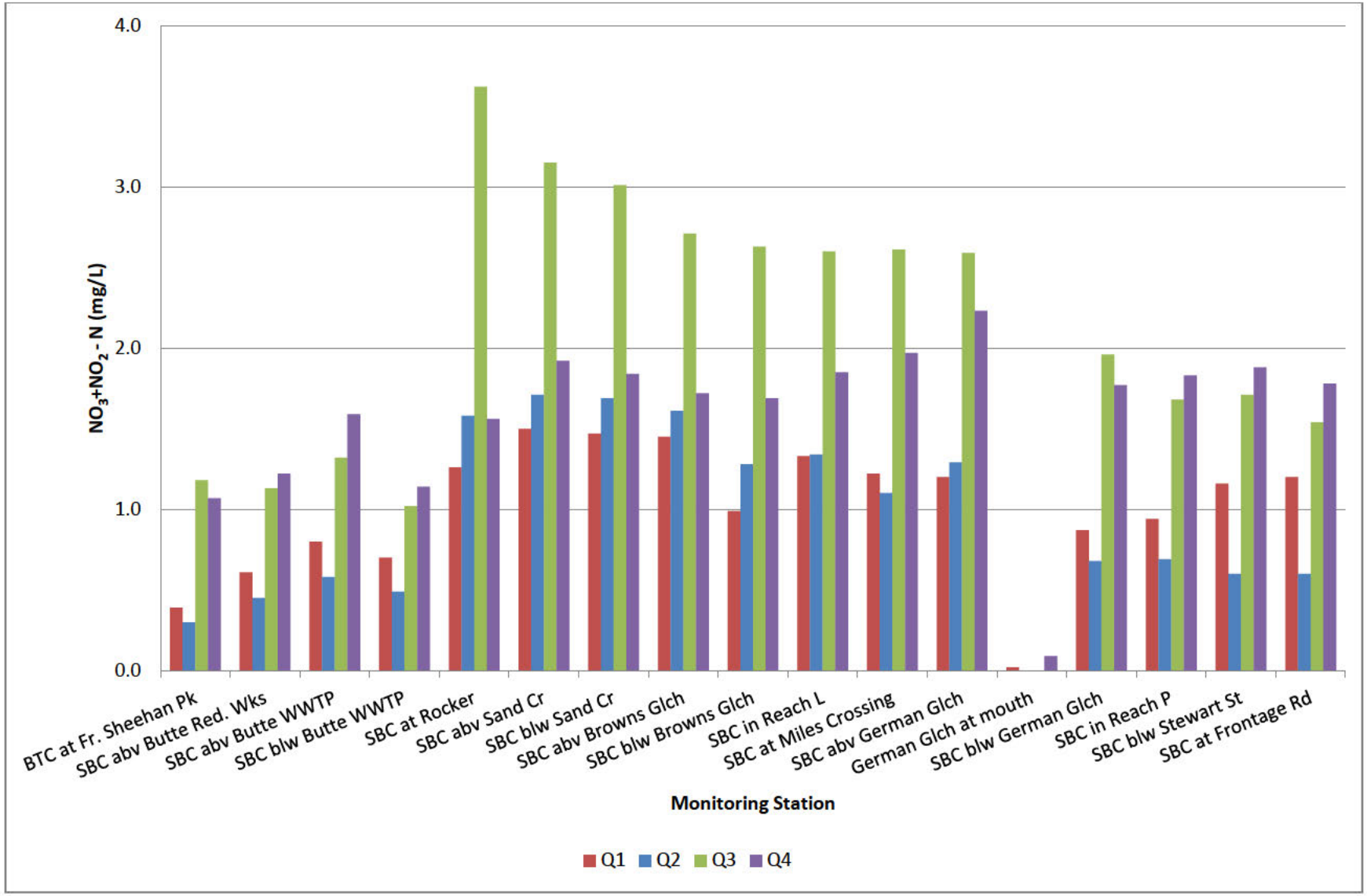

Figure 1-29. Nitrate plus nitrite nitrogen concentrations at Streamside Tailings Operable Unit monitoring stations, 2015. Missing bars indicate concentrations below the analytical reporting limit.

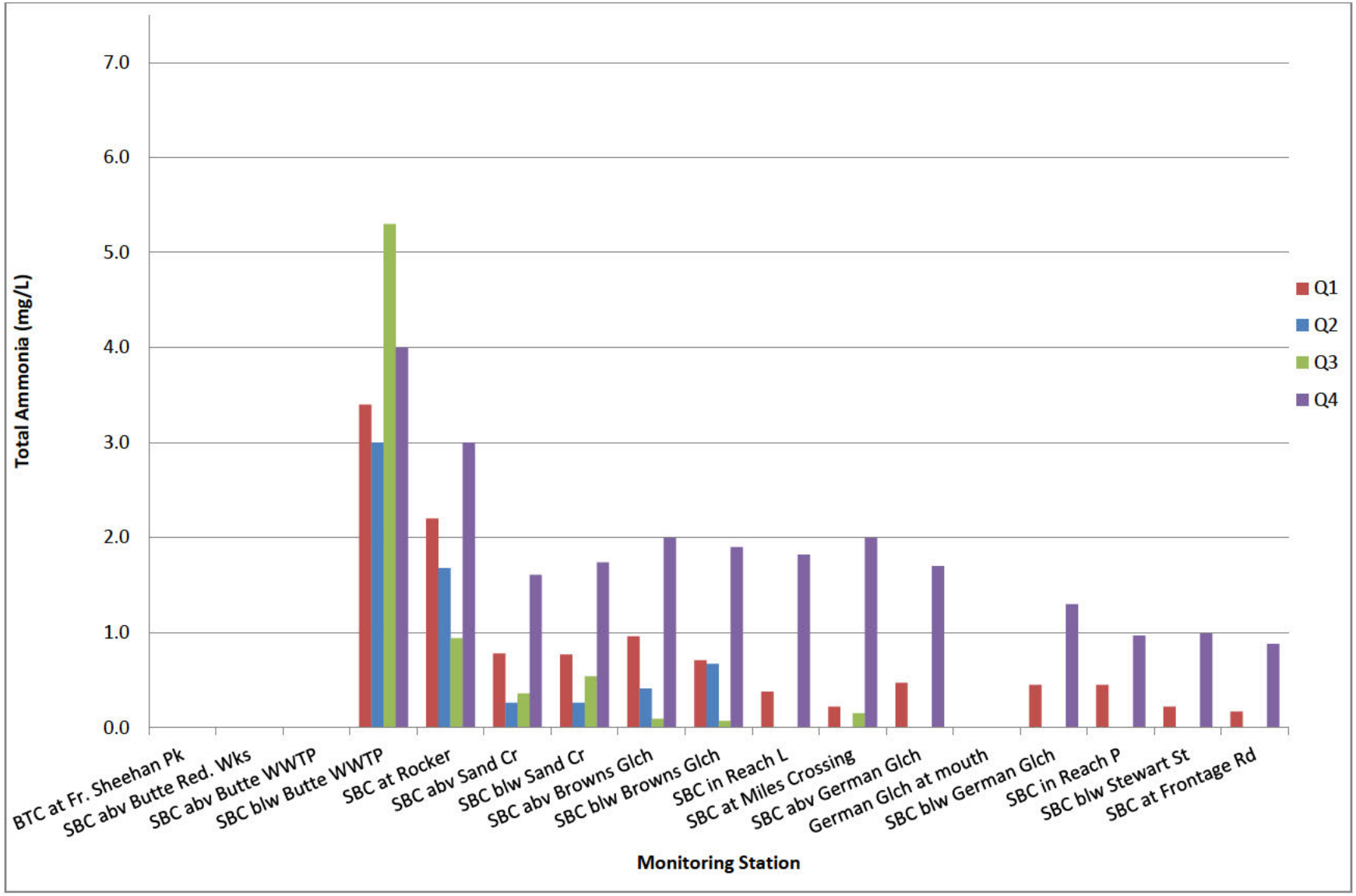

Figure 1-30. Total ammonia concentrations at Streamside Tailings Operable Unit monitoring stations, 2015. No bars indicate values less than the analytical reporting level.

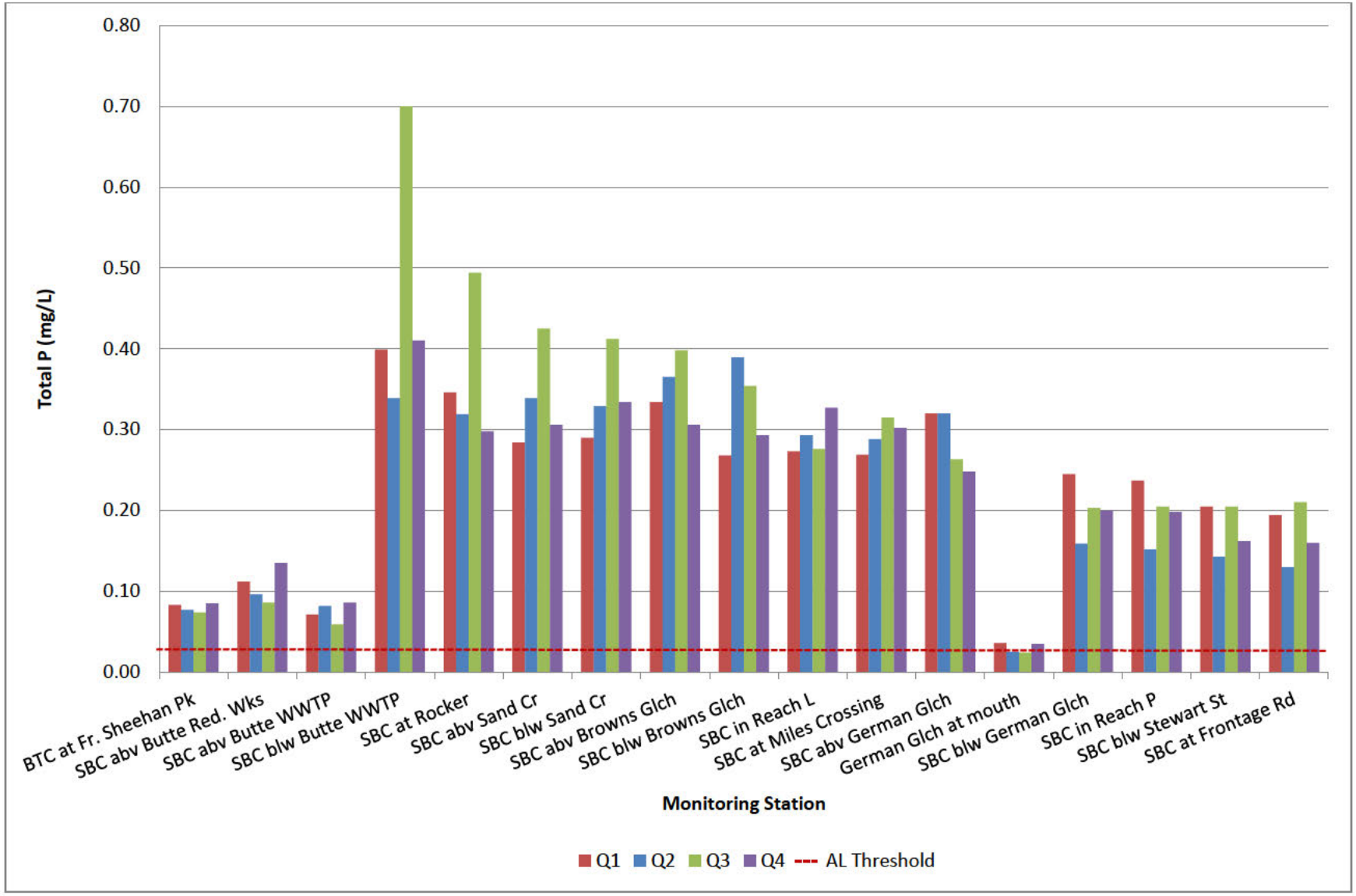

Figure 1-31. Total phosphorus concentrations at Streamside Tailings Operable Unit monitoring stations, 2015. The red dashed line represents the base numeric total phosphorus nutrient standard [MDEQ, 2014].

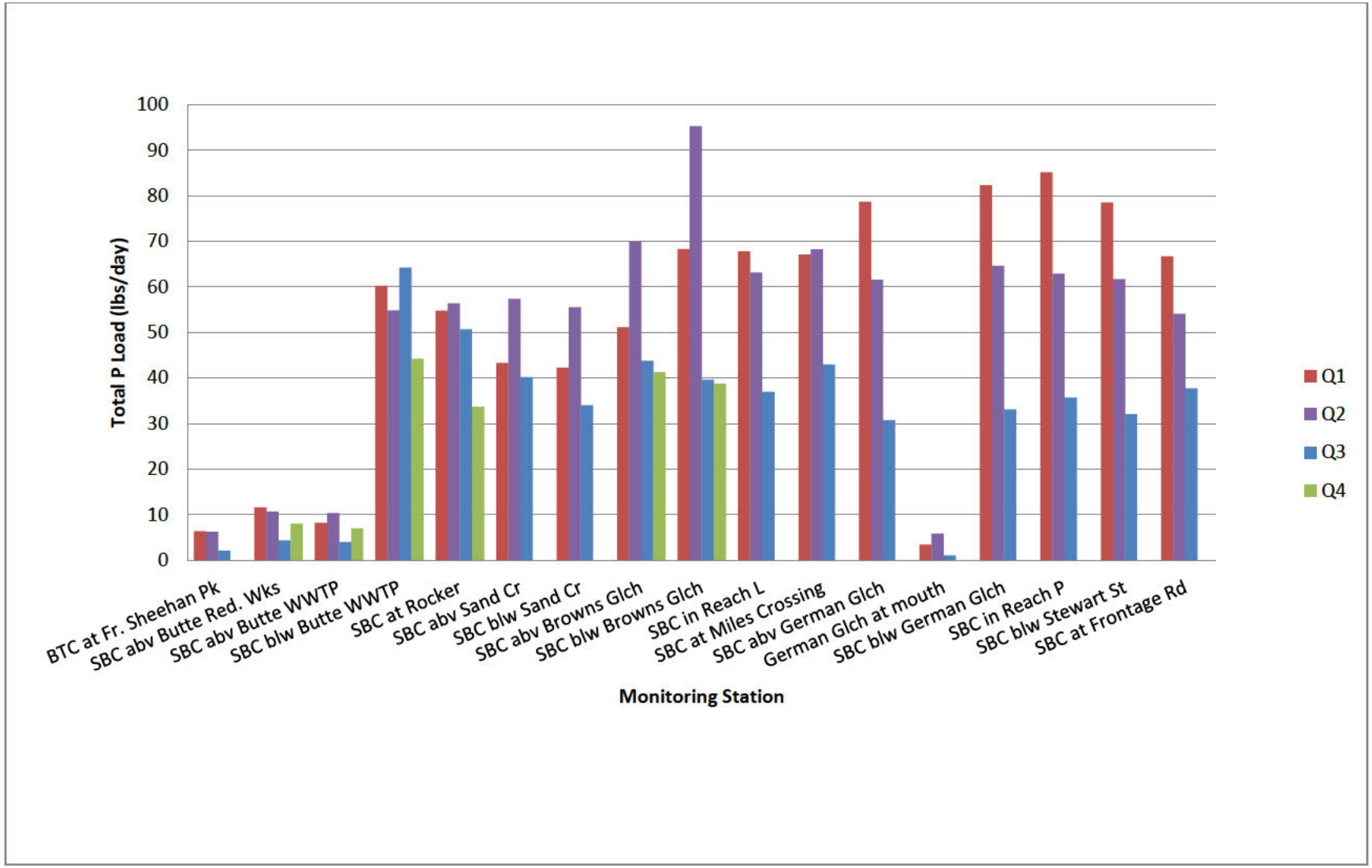

Figure 1-32. Total phosphorus loads at Streamside Tailings Operable Unit monitoring stations, 2015. Missing bars are attributable to missing streamflow data or concentrations below the analytical reporting limit.

1.4.5 Contaminants of Concern

1.4.5.1 Arsenic

Total recoverable arsenic concentrations in the SSTOU in 2015 ranged from 0.003-0.010 mg/L [Table 1-13] and dissolved concentrations ranged from 0.001-0.010 mg/L. Arsenic concentrations at SSTOU monitoring stations during 2015 were consistently lowest in German Gulch and in Blacktail Creek, and higher in Silver Bow Creek [Figure 1-33]. Arsenic concentrations in Silver Bow Creek appeared to fall into three spatial groupings showing similar concentrations in each group, as follows: 1) the lowest concentrations were observed in the headwaters area from above the Butte Reduction Works and extending downstream to above Browns Gulch; 2) higher concentrations were measured in Silver Bow Creek from below Browns Gulch to above German Gulch; and 3) intermediate concentrations were observed in Silver Bow Creek from below German Gulch to the Frontage Road station [Figure 1-33].

Most of the monitoring stations showed highest total recoverable arsenic concentrations during spring snowmelt runoff conditions in Q2 or during lower flow conditions in Q3 [Figure 1-33]. However, this pattern was not consistent at all stations. The lowest concentrations at most stations were observed in Q1 or Q4, when streamflows were quite low [Figure 1-33]. Overall, arsenic concentrations did not vary much seasonally at any given station, typically only one or two parts per billion [Table 1-13]. Most of the arsenic measured at SSTOU monitoring stations during the 2015 quarterly monitoring events was present in the dissolved form rather than as a sediment-associated form [Figure 1-33].

Concentrations of total recoverable arsenic at the SSTOU monitoring stations during monitoring events in 2015 were lower than values measured during 2014, but generally comparable to measurements made in 2013. Examination of the longer term data set for selected stations with continual data extending back to 2005 shows that annual median total recoverable arsenic concentrations have declined at some monitoring stations since the 2005-2007 period, including Silver Bow Creek below the Butte WWTP, at Rocker, below Sand Creek, below Browns Gulch, and below Stewart Street at Opportunity [Figure 1-34]. Total recoverable arsenic concentrations at the latter two of the above stations have shown the largest decreases over the 2005-2015 periods.

Exceedances of the MDEQ [2012a] human health surface water standard (HHSWS) for total recoverable arsenic (0.010 mg/L) during 2015 were not observed at any of the 17 monitoring stations during any of the four quarterly monitoring events [Table 1-13]. The frequency of HHSWS exceedances for total recoverable arsenic was higher in 2014 (6 of 68 samples), slightly higher than in 2012 and 2013 (1 of 64 samples), and higher in 2010 and 2011 (12 of 56 samples).

Figure 1-35 through Figure 1-40 present compliance ratios for total recoverable arsenic for Silver Bow Creek mainstem stations below the Butte WWTP, at Rocker, above and below Sand Creek, below Browns Gulch, and below Stewart Street at Opportunity. The compliance ratio at , Silver Bow Creek below Browns Gulch and at Opportunity commonly exceeded 1.0 in earlier years but has only exceeded 1.0 at one of the two stations, Silver Bow Creek below Browns Gulch, in only one quarter (Q2 2014) during the 2012-2015 period.

The 2015 arsenic loads generally increased gradually at each downstream site in Q3 and Q4 but load increases between sites were larger in Q1 and Q2 [Figure 1-41]. The largest increases between stations occurred between the Silver Bow Creek above and below Browns Gulch sites [Figure 1-41]. Peak seasonal rates of arsenic loading in 2015 were considerably lower than in any year since 2010. Arsenic loads could not be determined at several sites in Q4 because streamflow data was not available.

Table 1-13. Total recoverable arsenic concentrations (mg/L) at Streamside Tailings Operable Unit monitoring stations, 2015.

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	0.005	0.005	0.003	0.003
SS-05A	Silver Bow Creek above Butte Reduction Works	0.008	0.006	0.006	0.006
SS-06G	Silver Bow Creek above WWTP	0.005	0.006	0.006	0.005
SS-07	Silver Bow Creek below WWTP	0.004	0.005	0.005	0.004
SS-08	Silver Bow Creek at Rocker	0.005	0.005	0.006	0.005
SS-10A	Silver Bow Creek above Sand Creek	0.005	0.006	0.007	0.006
SS-10B	Silver Bow Creek below Sand Creek	0.005	0.006	0.007	0.006
SS-11C	Silver Bow Creek above Browns Gulch	0.006	0.007	0.008	0.006
SS-11D	Silver Bow Creek below Browns Gulch	0.008	0.010	0.008	0.006
SS-13	Silver Bow Creek in Reach L	0.007	0.009	0.007	0.006
SS-14	Silver Bow Creek at Miles Crossing	0.007	0.008	0.008	0.006
SS-15A	Silver Bow Creek above German Gulch	0.008	0.009	0.007	0.006
SS-15G	German Gulch near confluence	0.004	0.003	0.004	0.004
SS-15B	Silver Bow Creek below German Gulch	0.007	0.006	0.006	0.006
SS-16	Silver Bow Creek in Reach P near Fairmont	0.007	0.006	0.007	0.006
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	0.006	0.006	0.007	0.006
SS-19	Silver Bow Creek at Frontage Road	0.006	0.007	0.007	0.006

ND Not detected at analytical reporting limit.

Exceeds the human health surface water standard [MDEQ, 2012a].

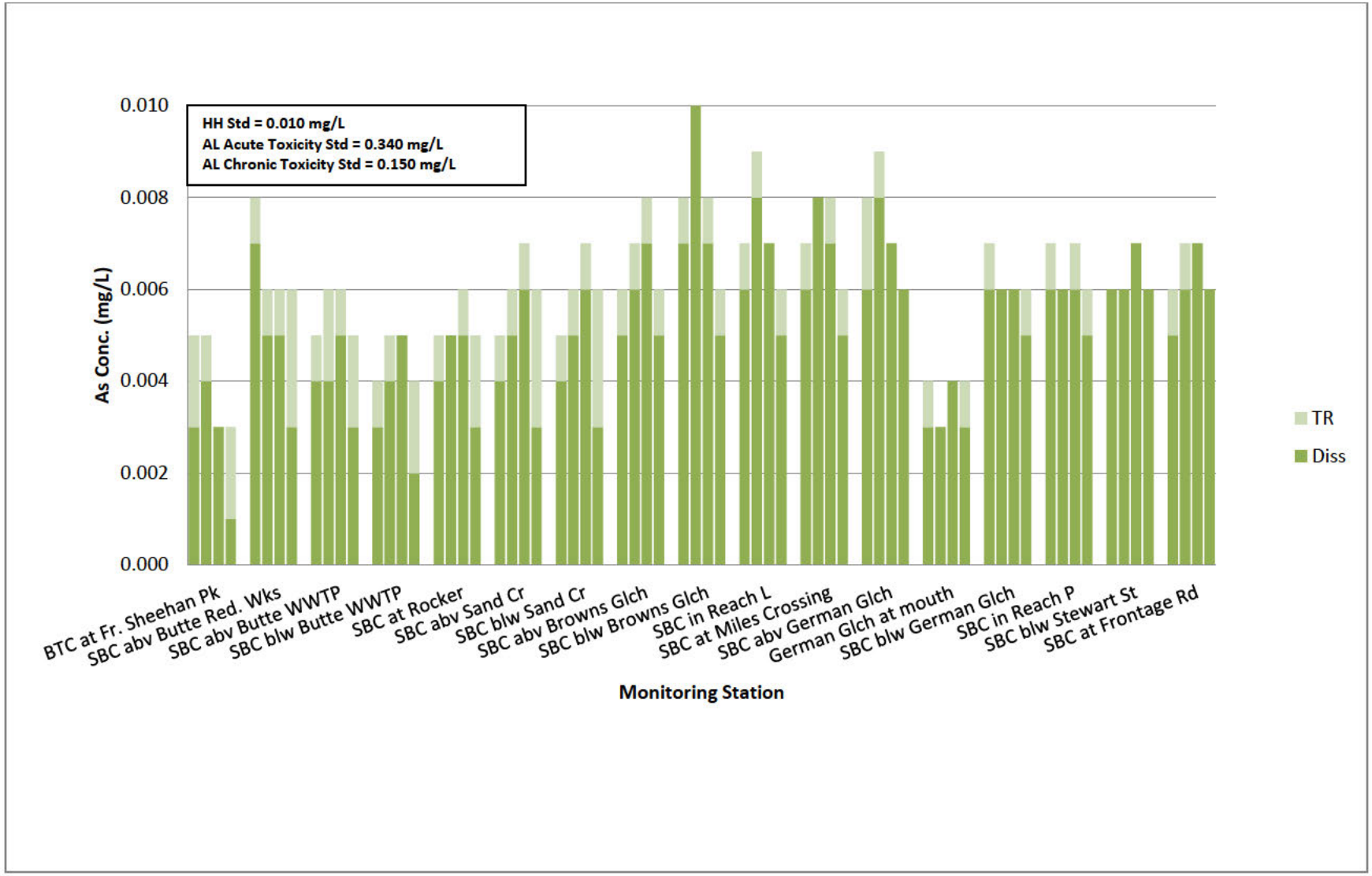

Figure 1-33. Total recoverable (TR) and dissolved (Diss) arsenic concentrations at Streamside Tailings Operable Unit monitoring stations, 2015. Human health (HH Std) and aquatic life toxicity (AL Acute/Chronic Toxicity Std) standards for total recoverable arsenic are shown for reference.

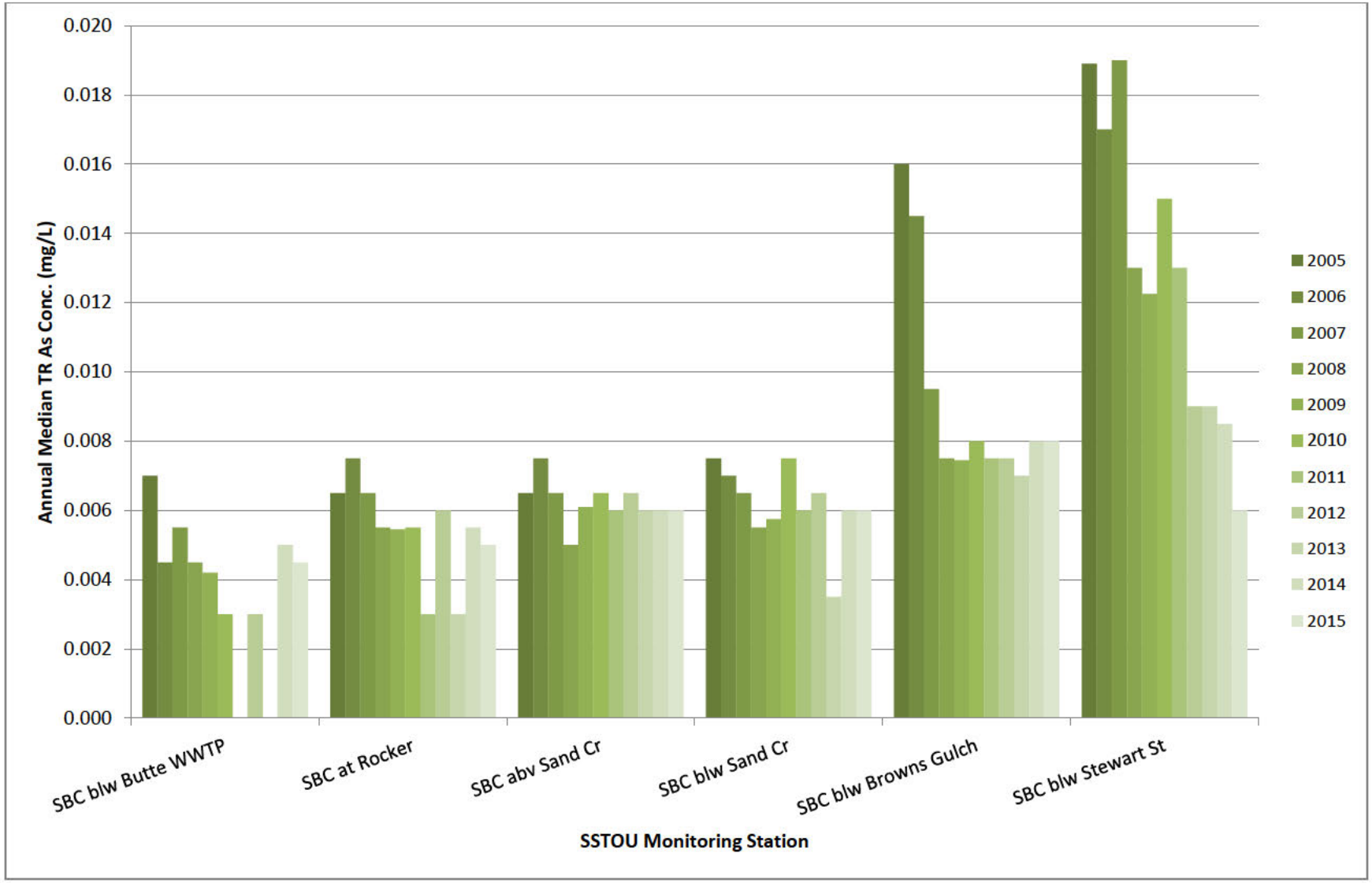

Figure 1-34. Annual median total recoverable arsenic concentrations at selected Streamside Tailings Operable Unit monitoring stations, 2005-2015.

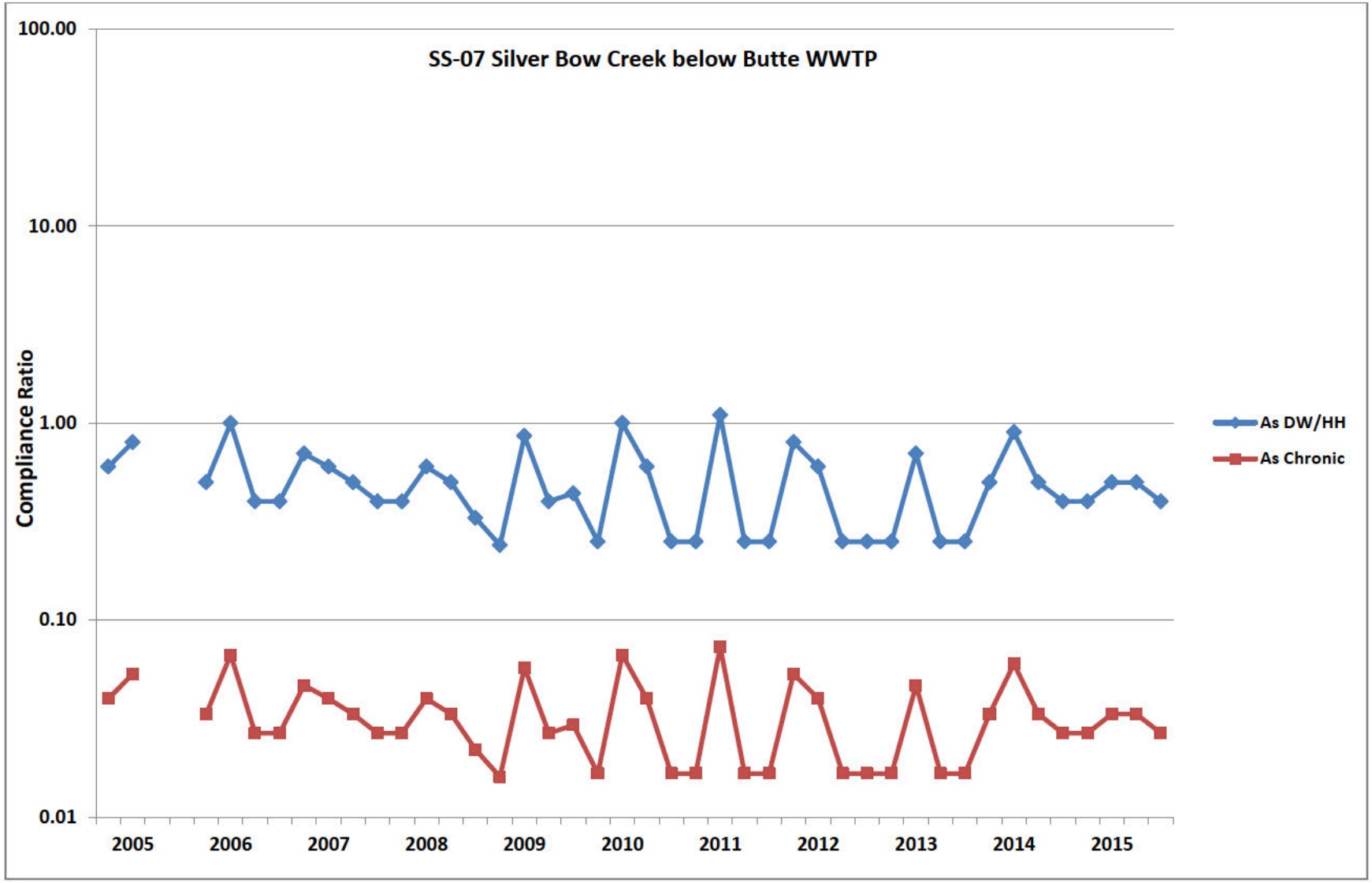

Figure 1-35. Total recoverable arsenic compliance ratios for Silver Bow Creek below the Butte wastewater treatment plant discharge, 2005–2015. Compliance ratios computed from quarterly measurements.

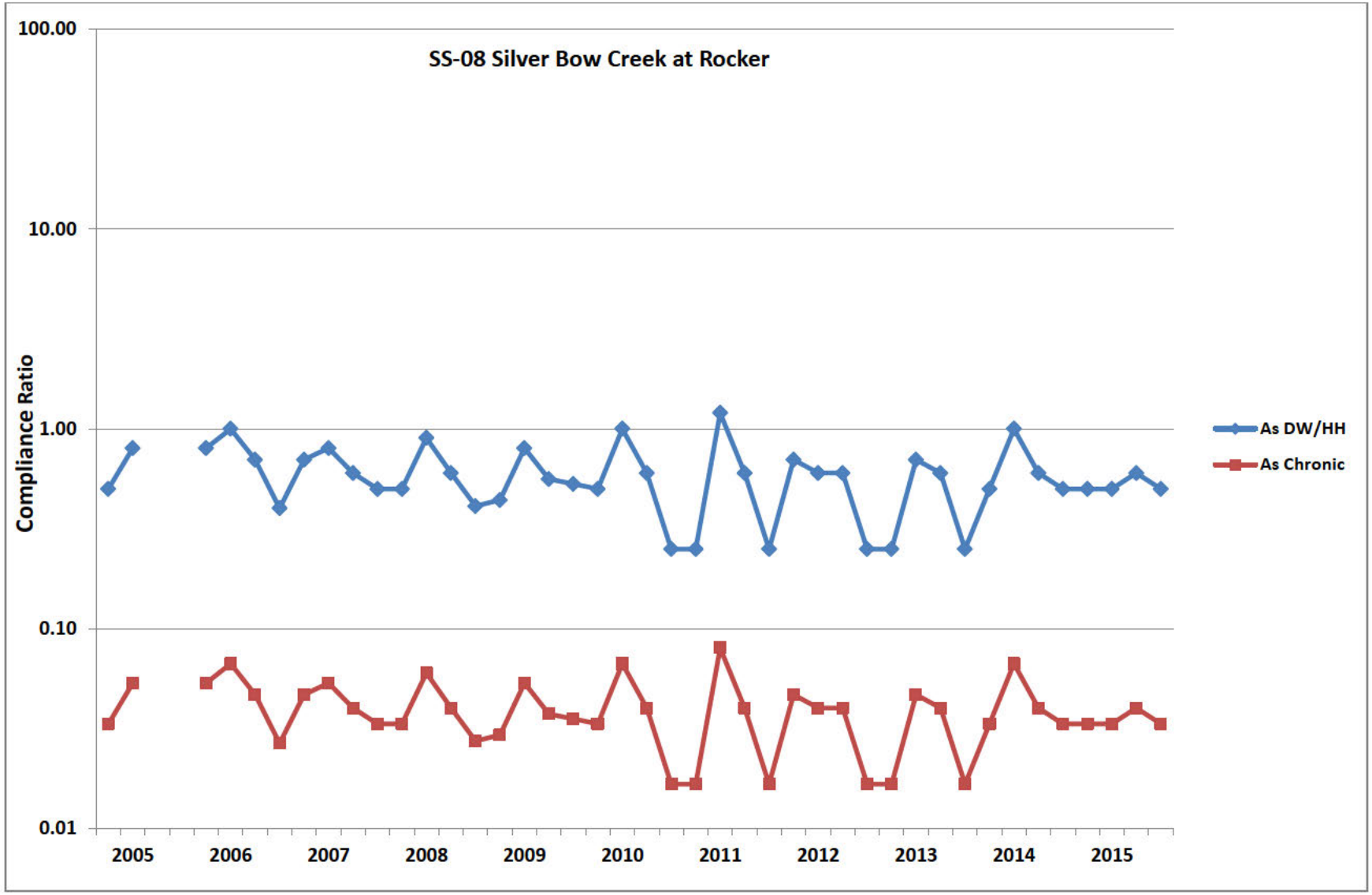

Figure 1-36. Total recoverable arsenic compliance ratios for Silver Bow Creek at Rocker, 2005–2015. Compliance ratios computed from quarterly measurements.

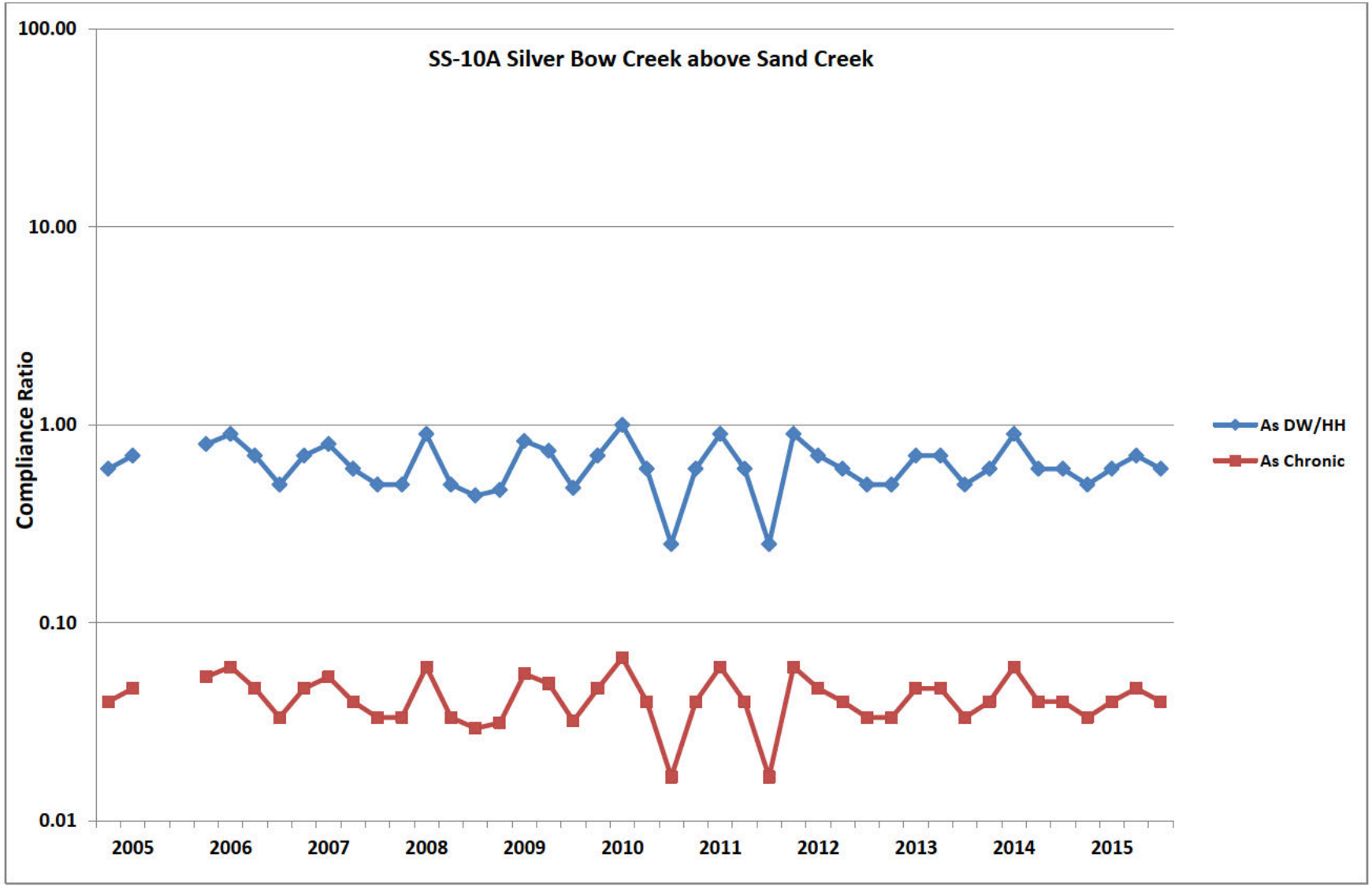

Figure 1-37. Total recoverable arsenic compliance ratios for Silver Bow Creek above Sand Creek, 2005–2015. Compliance ratios computed from quarterly measurements.

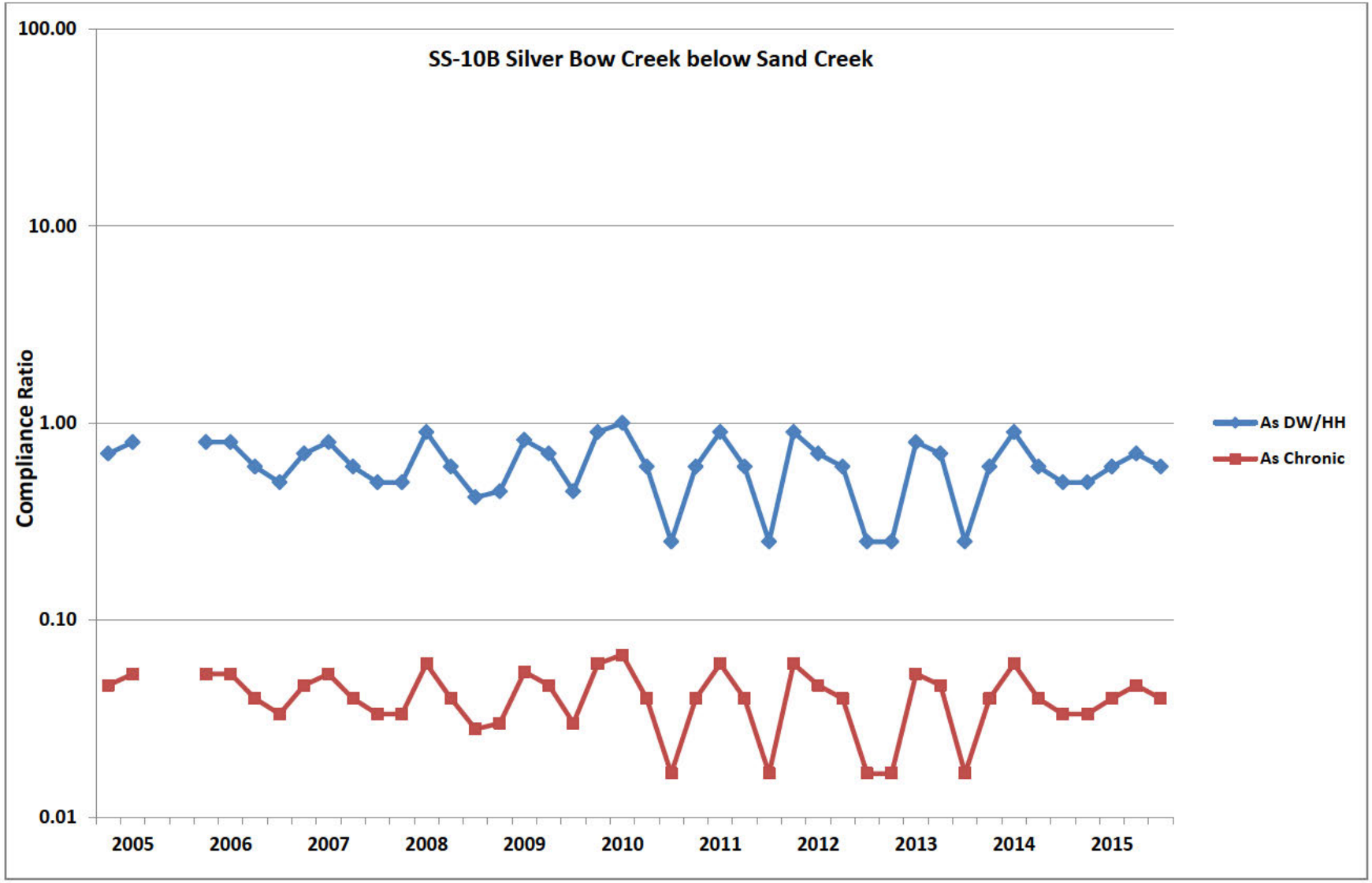

Figure 1-38. Total recoverable arsenic compliance ratios for Silver Bow Creek below Sand Creek, 2005–2015. Compliance ratios computed from quarterly measurements.

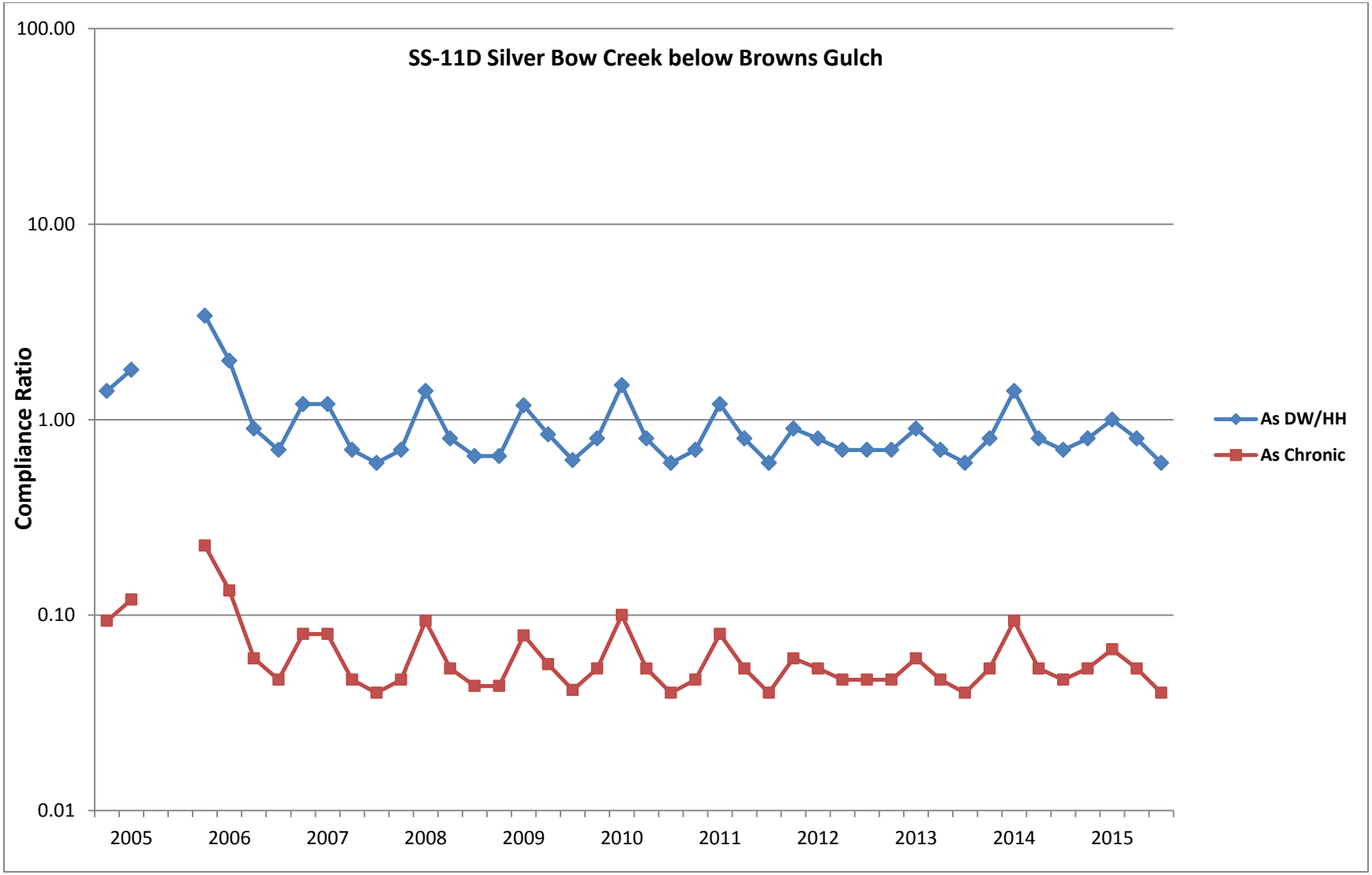

Figure 1-39. Total recoverable arsenic compliance ratios for Silver Bow Creek below Browns Gulch, 2005–2015. Compliance ratios computed from quarterly measurements.

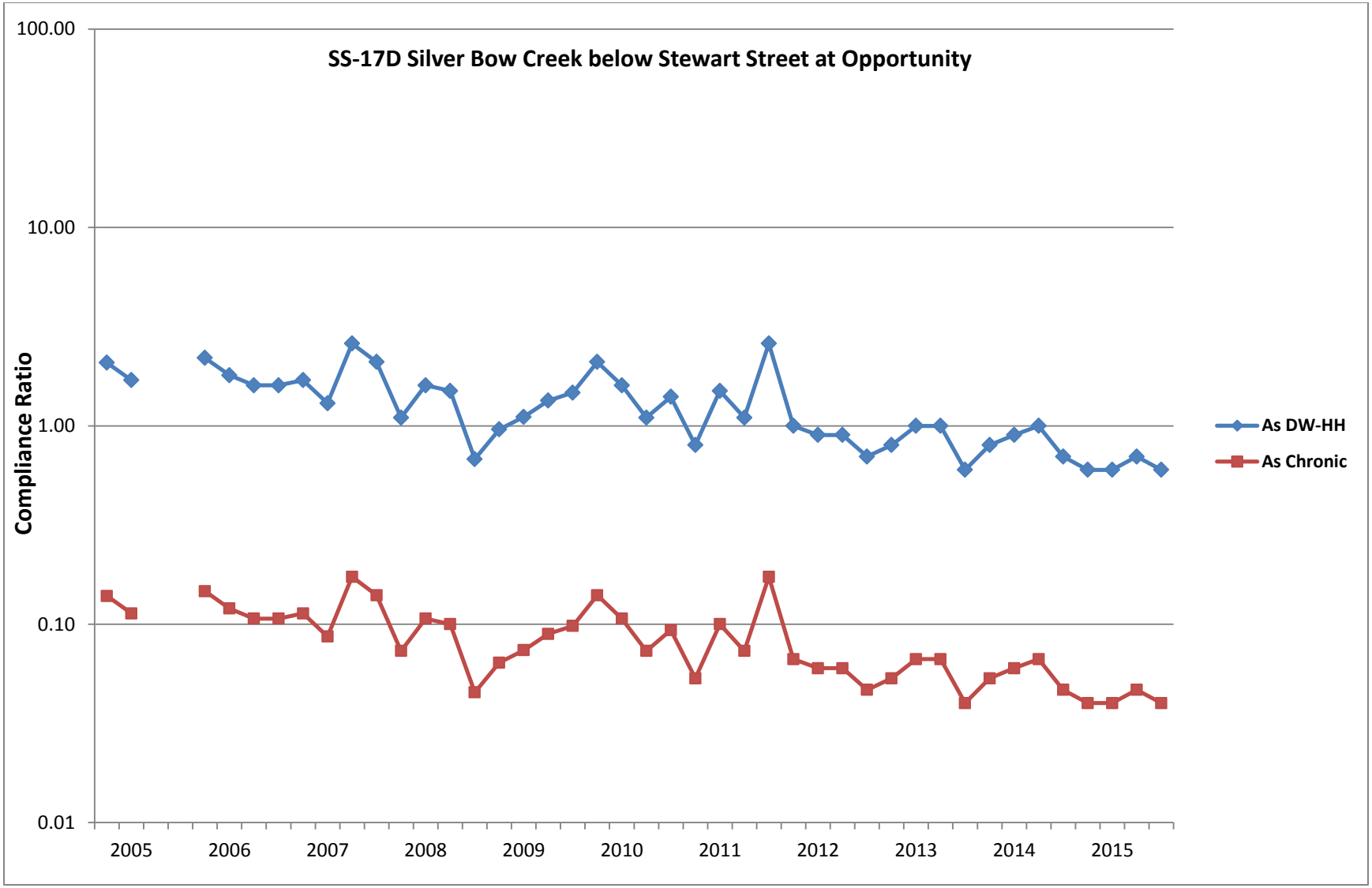

Figure 1-40. Total recoverable arsenic compliance ratios for Silver Bow Creek below Stewart Street at Opportunity, 2005–2015. Compliance ratios computed from quarterly measurements.

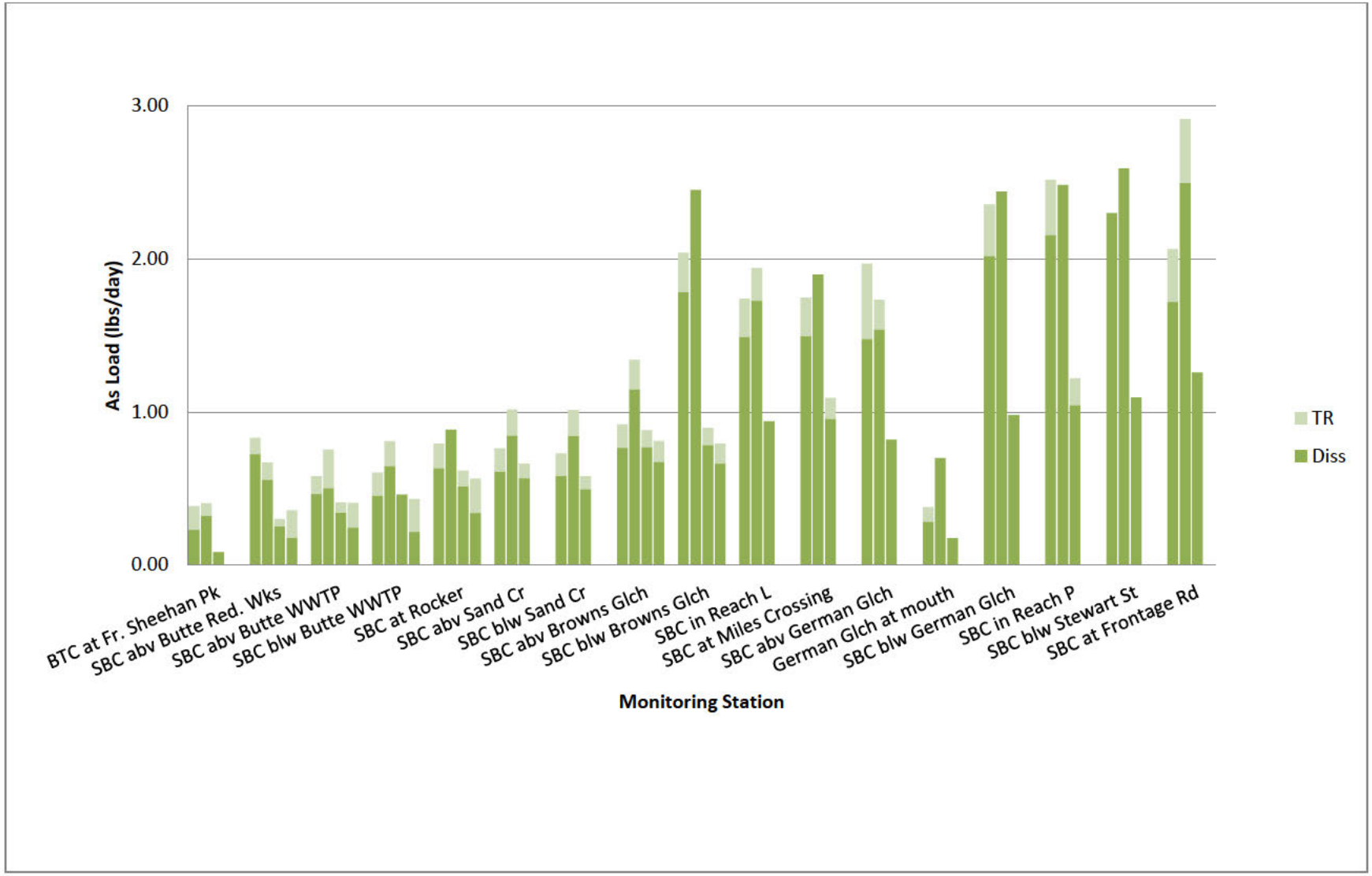

Figure 1-41. Total recoverable (TR) and dissolved (Diss) arsenic loads at Streamside Tailings Operable Unit monitoring stations, 2015. No bars indicate missing streamflow data.

1.4.5.2 Cadmium

Total recoverable cadmium concentrations in the SSTOU in 2015 ranged from <0.00003-0.00056 mg/L [Table 1-14] and dissolved concentrations ranged from <0.00003-0.00030 mg/L. Cadmium concentrations generally increased at each downstream monitoring station from the Butte WWTP to above Browns Gulch [Figure 1-42]. From the above Browns Gulch station downstream to the above German Gulch station, cadmium concentrations tended to stabilize [Figure 1-42]. Cadmium concentrations tended to decrease slightly from above to below German Gulch inflow [Figure 1-42]. Downstream from the below German Gulch station, cadmium concentrations generally remained steady [Figure 1-42]. The highest total recoverable cadmium concentrations in 2015 were observed in Silver Bow Creek above and below Sand Creek in Q4 [Table 1-14; Figure 1-42].

All samples from German Gulch and 3 of 4 samples from Blacktail Creek at Father Sheehan Park had cadmium concentrations below the analytical reporting limit [Table 1-14]. The highest dissolved cadmium concentrations were observed in Silver Bow Creek below Stewart Street at Opportunity and at Frontage Road in Q4 [Table 1-14; Figure 1-42]. There did not appear to be a clear seasonal trend for cadmium concentrations in 2015 although concentrations were elevated at several stations in Q4. The maximum annual concentration at each site was observed in Q4 at 53% (9 of 17) of the sites [Table 1-14]. The minimum annual concentration at each site was observed in Q3 at 71% (12 of 17) of the sites [Table 1-14].

Dissolved cadmium concentrations were typically <50% of the total recoverable sample fraction in the 2015 SSTOU samples [Figure 1-42]. However, there was considerable variability in the proportion of dissolved cadmium in each sample [Figure 1-42]. In general, the proportion of dissolved cadmium in each sample was lowest in Q2 when streamflows were relatively high and in Q4 at sites with elevated turbidity.

Total recoverable cadmium concentrations in the SSTOU in 2015 were similar to concentrations observed in prior years (2010-2014). However, the annual maximum concentrations in 2015 were generally below the maximum concentrations in the prior years. Since 2007, median annual total recoverable cadmium concentrations have remained steady (with some annual variation) in Silver Bow Creek below the Butte WWTP [], at Rocker, above and below Sand Creek, and below Browns Gulch [Figure 1-43]. However, median annual total recoverable cadmium concentrations have decreased steadily at Silver Bow Creek below Stewart Street at Opportunity [Figure 1-43]. As of 2015, median cadmium concentrations at Opportunity were similar to concentrations below the Butte WWTP, at Rocker, above and below Sand Creek, and below Browns Gulch [Figure 1-43].

Exceedances of the cadmium chronic ALS [MDEQ, 2012a]occurred at six sites in 2015 [Table 1-14]. All Silver Bow Creek stations from above Sand Creek to above German Gulch (except at Miles Crossing) exceeded the chronic ALS [MDEQ, 2012a] during one sample period [Table 1-14]. The frequency of exceedances of the chronic ALS [MDEQ, 2012a] in 2015 (9%; 6 of 68 samples) was lower than in 2014 (25%; 17 of 68 samples), 2013 (11%; 7 of 64 samples), 2012 (29%; 16 of 56 samples), 2011 (48%; 27 of 56 samples) and 2010 (43%; 24 of 56 samples). No

exceedances of the [MDEQ, 2012a] acute ALS or HHSWS for cadmium have occurred in the SSTOU since 2011.

Cadmium compliance ratios appear to have declined, or remained steady, since 2005 at all stations where compliance ratios have been evaluated [Figure 1-44 through Figure 1-49]. The greatest decrease in compliance ratios have occurred at the station below the Butte WWTP; from 8.76 in Q1 2006 to 0.10 in Q4 2012 [Figure 1-44]. The most substantial decrease in compliance ratios at most sites occurred from 2005–2008 [Figure 1-44 through Figure 1-49]. However, at the Silver Bow Creek below Stewart Street at Opportunity station, the most substantial decrease in compliance ratios have occurred primarily since 2009 [Figure 1-49]. Cadmium compliance ratios increased at some sites in Q4 in 2014 and 2015 [Figure 1-44 through Figure 1-49].

Cadmium loads generally increased at each downstream site between the above Butte Reduction Works site downstream to the above Browns Gulch site [Figure 1-50]. Cadmium loads were steady in Silver Bow Creek from above Browns Gulch to below German Gulch during most quarterly monitoring events [Figure 1-50]. Downstream from the below German Gulch site, cadmium loads generally increased at each downstream site [Figure 1-50]. The greatest increase in cadmium loads between adjacent sites occurred n Q2 2015 at the Frontage Road site [Figure 1-50].

Table 1-14. Total recoverable cadmium concentrations (mg/L) at Streamside Tailings Operable Unit monitoring stations, 2015.

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	ND	0.00004	ND	ND
SS-05A	Silver Bow Creek above Butte Reduction Works	0.00006	0.00009	0.00008	0.00018
SS-06G	Silver Bow Creek above WWTP	0.00008	0.00011	0.00008	0.00019
SS-07	Silver Bow Creek below WWTP	0.00008	0.00009	0.00008	0.00013
SS-08	Silver Bow Creek at Rocker	0.00022	0.00020	0.00011	0.00027
SS-10A	Silver Bow Creek above Sand Creek	0.00034	0.00031	0.00016	0.00055
SS-10B	Silver Bow Creek below Sand Creek	0.00033	0.00033	0.00018	0.00056
SS-11C	Silver Bow Creek above Browns Gulch	0.00044	0.00048	0.00027	0.00039
SS-11D	Silver Bow Creek below Browns Gulch	0.00034	0.00041	0.00024	0.00034
SS-13	Silver Bow Creek in Reach L	0.00032	0.00039	0.00030	0.00049
SS-14	Silver Bow Creek at Miles Crossing	0.00031	0.00034	0.00030	0.00044
SS-15A	Silver Bow Creek above German Gulch	0.00039	0.00040	0.00015	0.00029
SS-15G	German Gulch near confluence	ND	ND	ND	ND
SS-15B	Silver Bow Creek below German Gulch	0.00026	0.00022	0.00012	0.00022
SS-16	Silver Bow Creek in Reach P near Fairmont	0.00032	0.00024	0.00014	0.00035
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	0.00032	0.00030	0.00023	0.00032
SS-19	Silver Bow Creek at Frontage Road	0.00036	0.00033	0.00024	0.00036

ND Not detected at analytical reporting limit.

Exceeds the chronic aquatic life standard [MDEQ, 2012a].

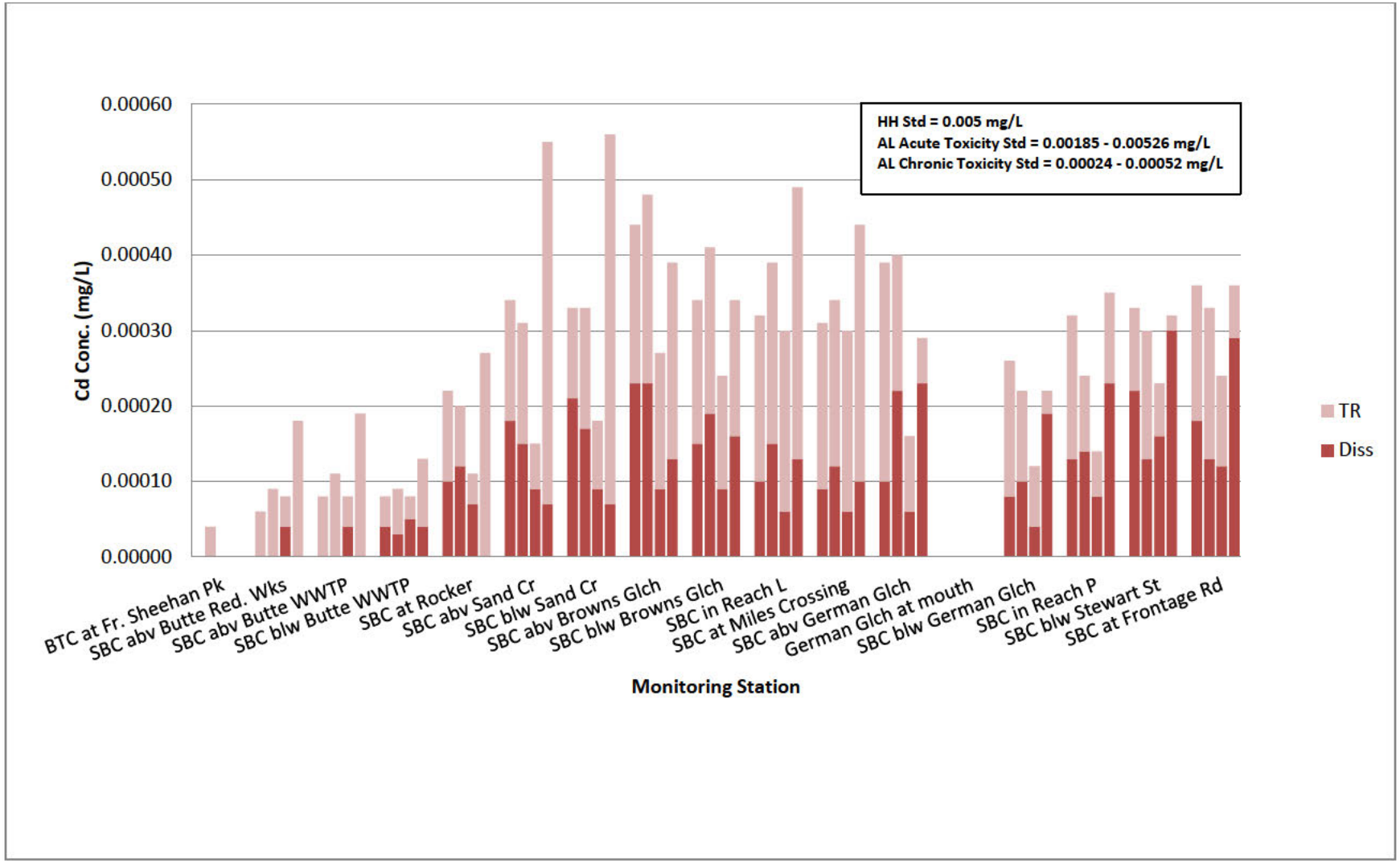

Figure 1-42. Total recoverable (TR) and dissolved (Diss) cadmium concentrations at Streamside Tailings Operable Unit monitoring stations, 2015. Human health (HH Std) and aquatic life toxicity (AL Acute/Chronic Toxicity Std) standards for total recoverable cadmium are shown for reference. Missing bars indicate concentrations below the analytical reporting limit.

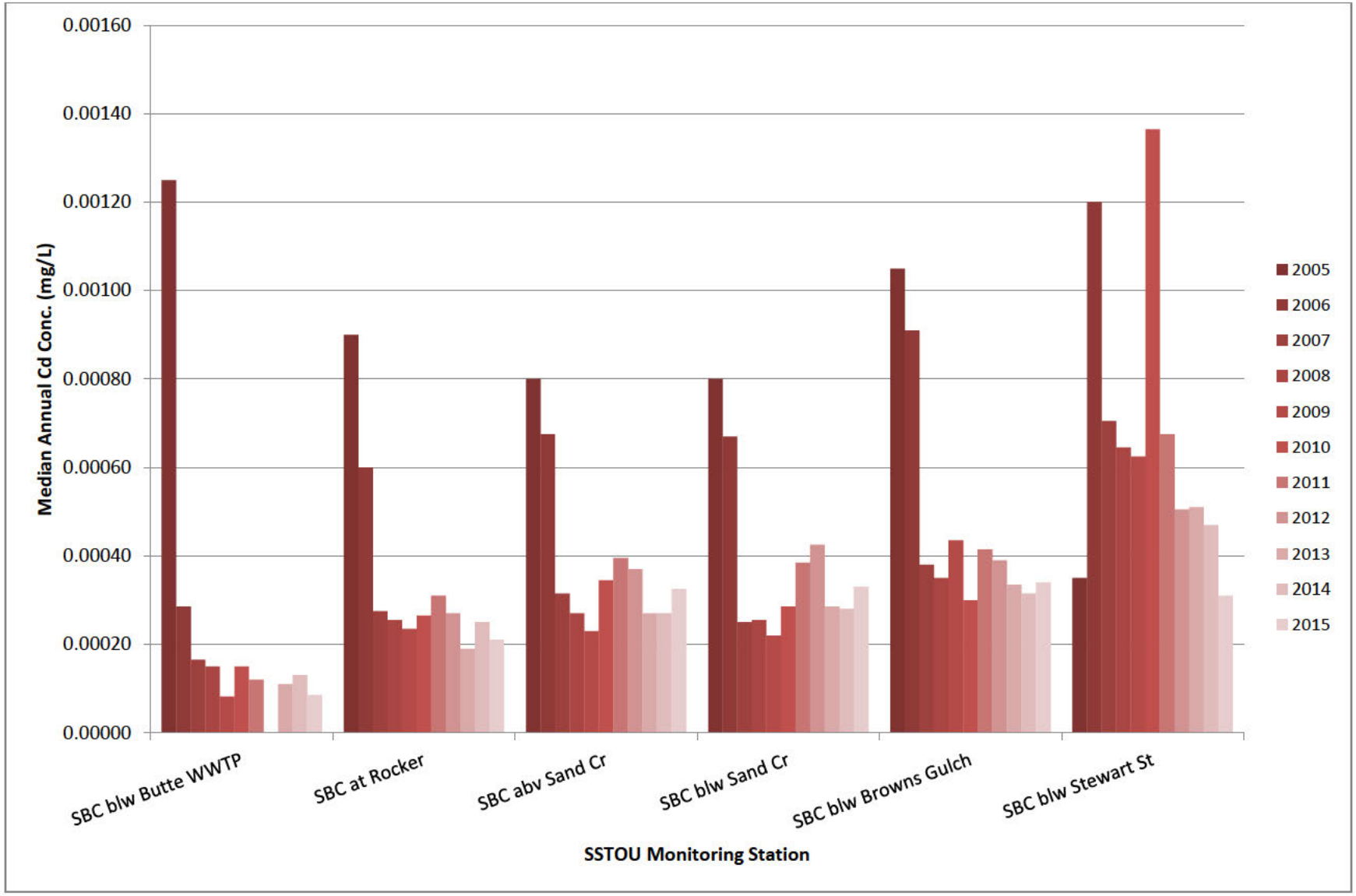

Figure 1-43. Annual median total recoverable cadmium concentrations at selected Streamside Tailings Operable Unit monitoring stations, 2005–2015.

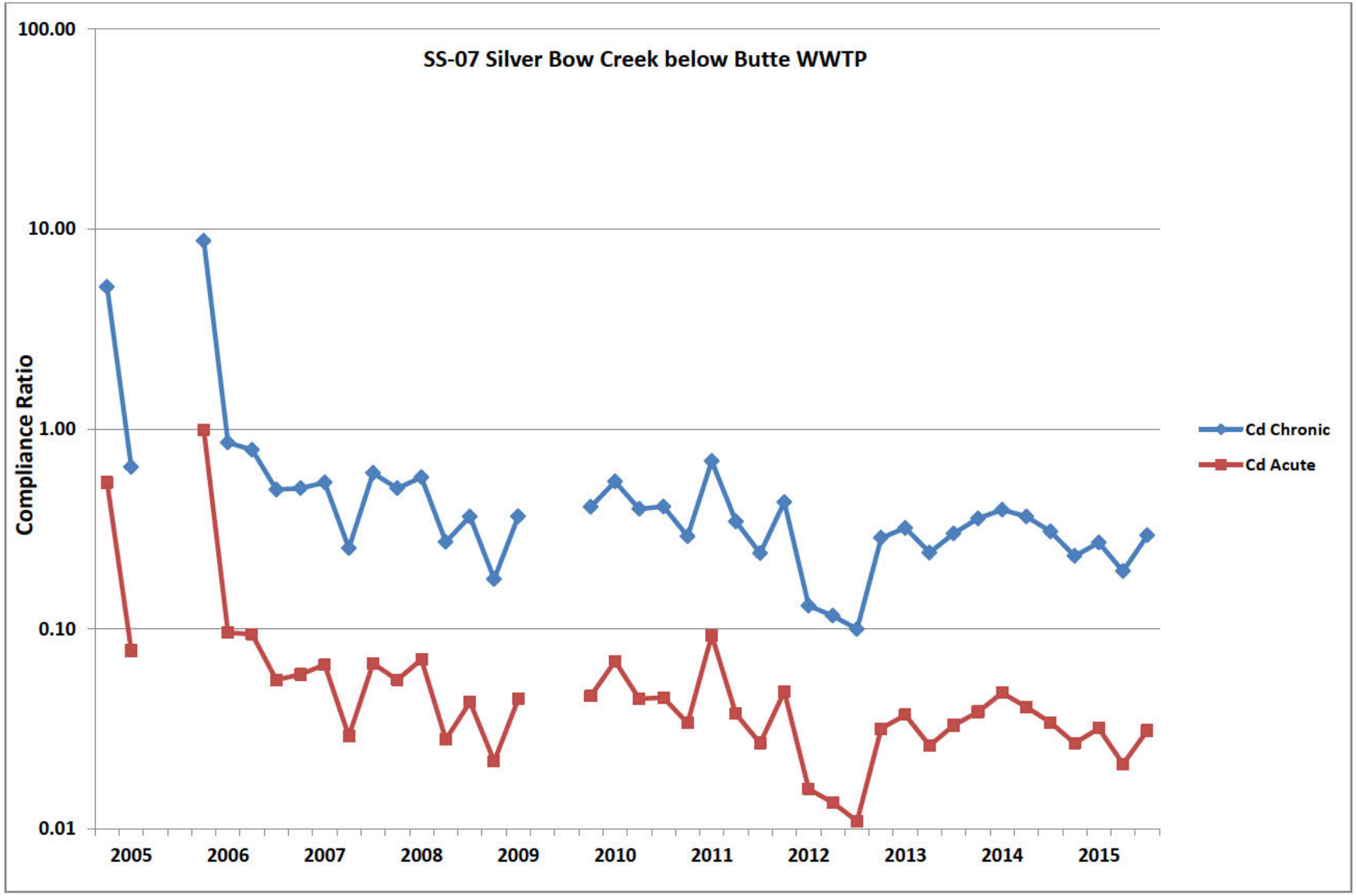

Figure 1-44. Total recoverable cadmium compliance ratios for Silver Bow Creek below the Butte wastewater treatment plant discharge, 2005–2015. Compliance ratios computed from quarterly measurements.

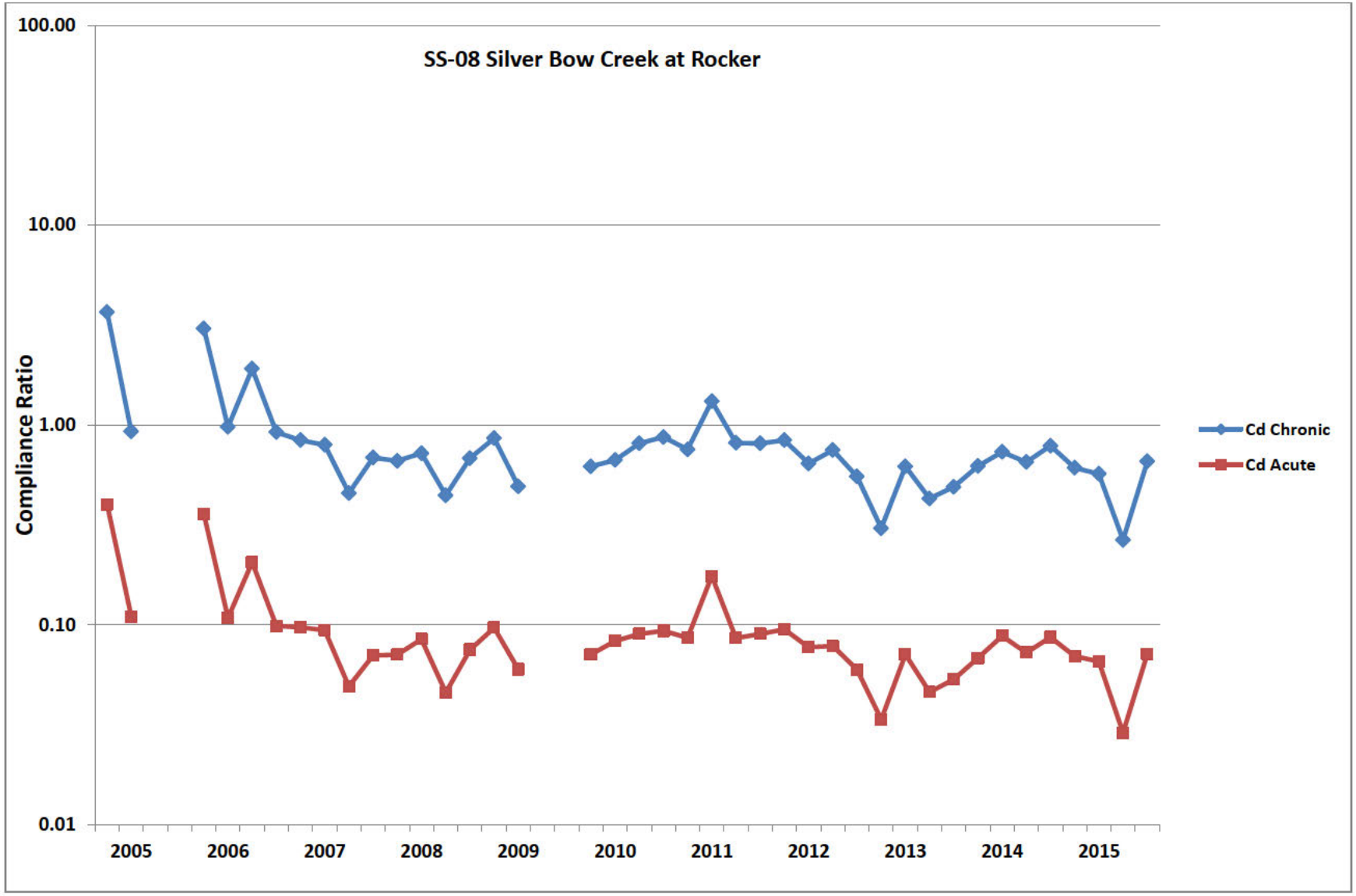

Figure 1-45. Total recoverable cadmium compliance ratios for Silver Bow Creek at Rocker, 2005–2015. Compliance ratios computed from quarterly measurements.

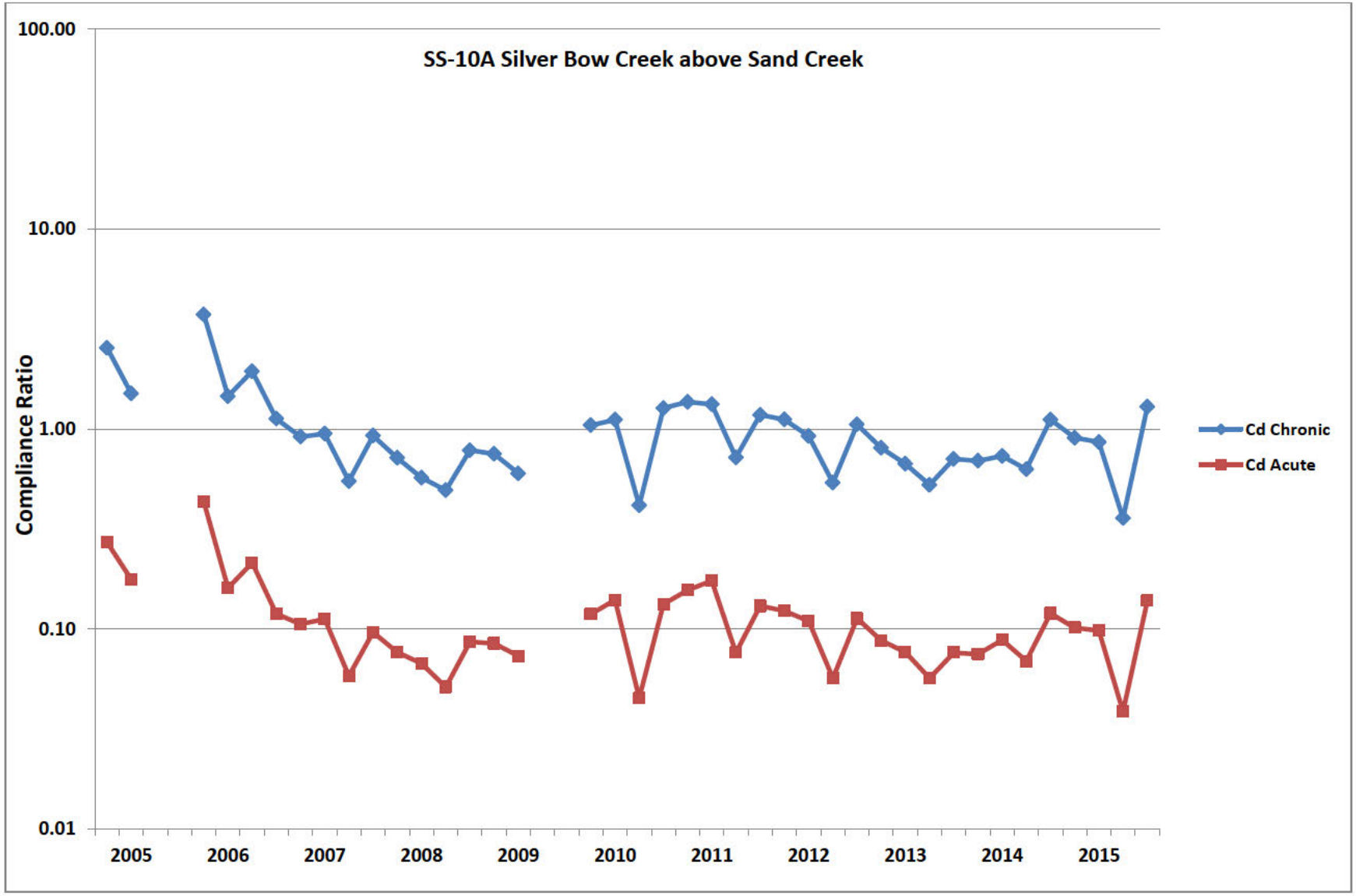

Figure 1-46. Total recoverable cadmium compliance ratios for Silver Bow Creek above Sand Creek, 2005–2015. Compliance ratios computed from quarterly measurements.

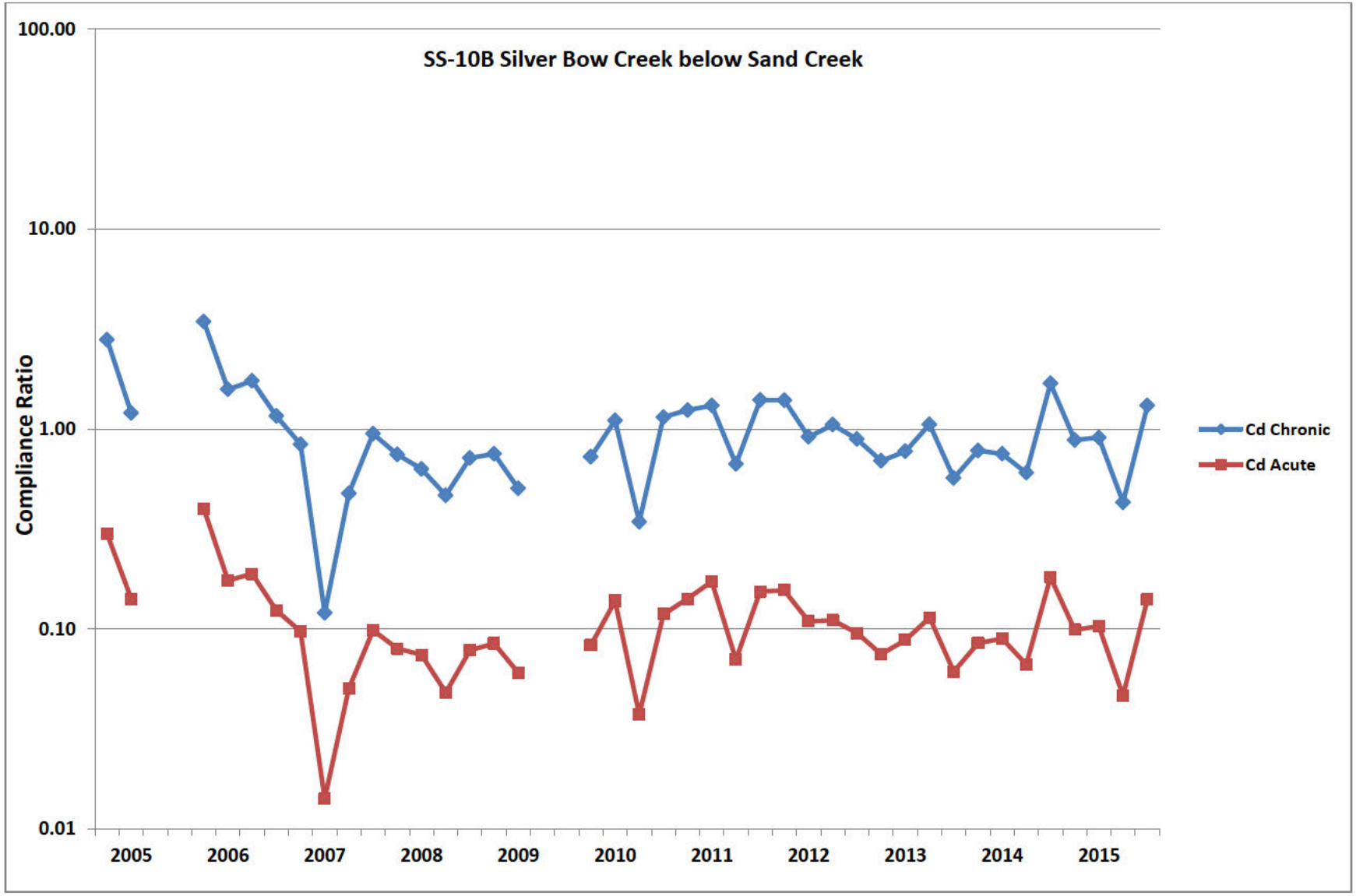

Figure 1-47. Total recoverable cadmium compliance ratios for Silver Bow Creek below Sand Creek, 2005–2015. Compliance ratios computed from quarterly measurements.

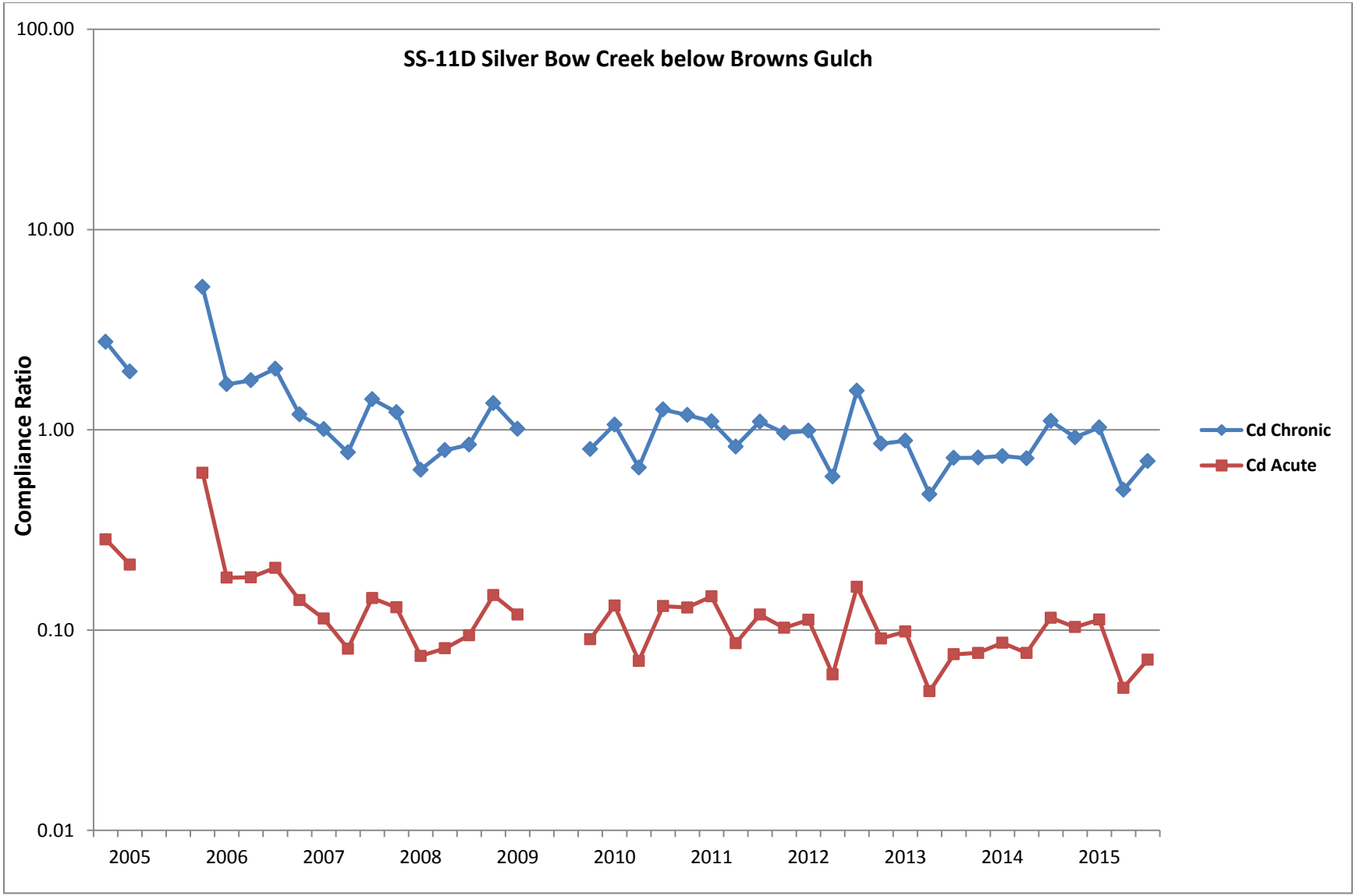

Figure 1-48. Total recoverable cadmium compliance ratios for Silver Bow Creek below Browns Gulch, 2005–2015. Compliance ratios computed from quarterly measurements.

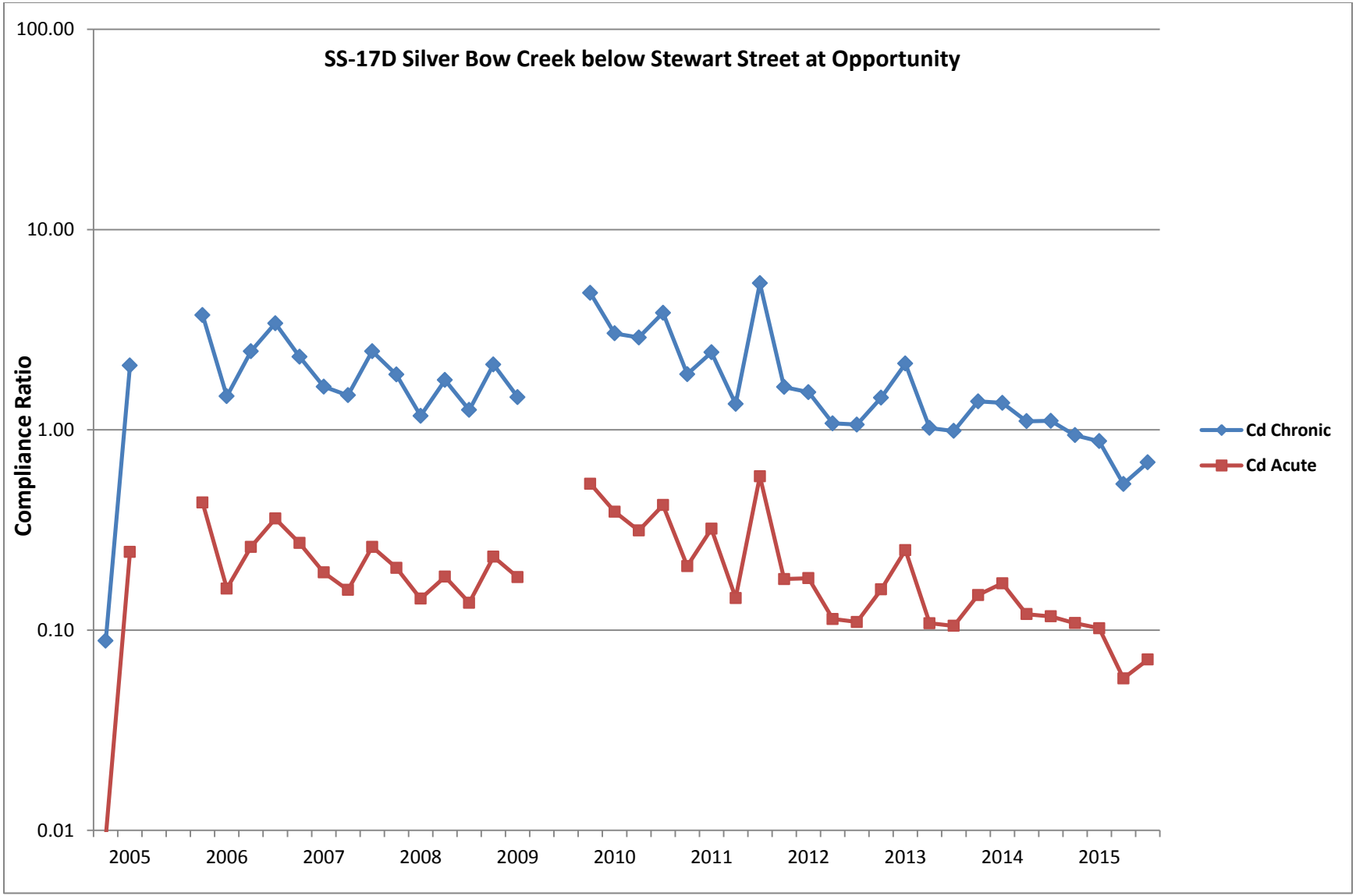

Figure 1-49. Total recoverable cadmium compliance ratios for Silver Bow Creek at Opportunity, 2005–2015. Compliance ratios computed from quarterly measurements.

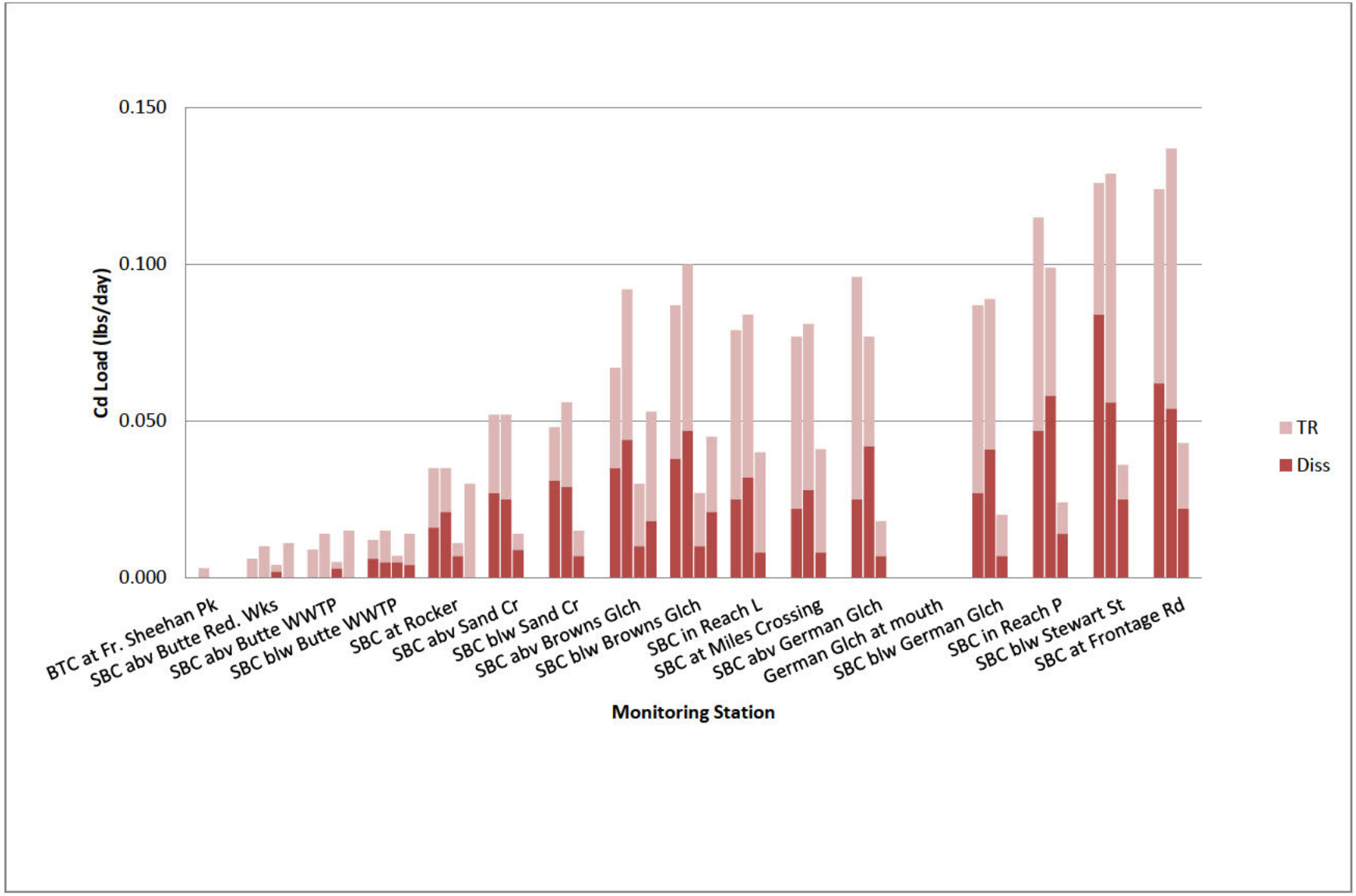

Figure 1-50. Total recoverable (TR) and dissolved (Diss) cadmium loads at Streamside Tailings Operable Unit monitoring stations, 2015. No bars indicate no measureable load or missing streamflow data.

1.4.5.3 Copper

Total recoverable copper concentrations in the SSTOU in 2015 ranged from <0.001-0.052 mg/L [Table 1-15] and dissolved concentrations ranged from <0.001-0.025 mg/L. Copper concentrations generally increased at each downstream monitoring station from the Butte WWTP to above Sand Creek [Figure 1-51]. From the above Sand Creek station downstream to the above German Gulch station, copper concentrations tended to stabilize [Figure 1-51]. Copper concentrations decreased during all quarters from above to below German Gulch inflow [Figure 1-51]. Downstream from the below German Gulch station, copper concentrations generally remained steady [Figure 1-51]. The highest total recoverable copper concentrations in 2015 were observed in Silver Bow Creek above and below Sand Creek in Q4 [Table 1-15; Figure 1-51].

Copper concentrations in German Gulch and Blacktail Creek at Father Sheehan Park were consistently low [Table 1-15]. The highest dissolved copper concentrations were observed in Silver Bow Creek at Rocker, below Sand Creek, and above Browns Gulch in Q1 [Table 1-15; Figure 1-51]. There did not appear to be a clear seasonal trend for copper concentrations in 2015 although concentrations were elevated at several stations in Q4. The maximum annual concentration at each site was observed in Q4 at 59% (10 of 17) of the sites [Table 1-15].

Dissolved copper concentrations were typically 33-50% of the total recoverable sample fraction in the 2015 SSTOU samples [Figure 1-51]. However, there was considerable variability in the proportion of dissolved copper in each sample, particularly in Q4 [Figure 1-51]. In general, the proportion of dissolved copper in each sample was lowest in Q2 when streamflows were relatively high and in Q4 at sites with elevated turbidity.

Since 2007, median annual total recoverable copper concentrations have remained steady (with some annual variation) in Silver Bow Creek at Rocker, above and below Sand Creek, and below Browns Gulch [Figure 1-52]. However, median annual total recoverable copper concentrations have decreased steadily at Silver Bow Creek below the Butte WWTP and below Stewart Street at Opportunity [Figure 1-52]. As of 2015, median copper concentrations at Opportunity were similar to, and in some cases lower than, concentrations below the Butte WWTP, at Rocker, above and below Sand Creek, and below Browns Gulch [Figure 1-52].

Exceedances of the copper chronic, and sometimes the acute, ALS [MDEQ, 2012a] occurred at all Silver Bow Creek sites downstream from the below Butte WWTP site during at least one quarter in 2015 [Table 1-15]. All Silver Bow Creek sites from the at Rocker site to the at Miles Crossing site exceeded the chronic ALS [MDEQ, 2012a] during at least three quarters and exceeded acute ALS [MDEQ, 2012a] during at least two quarters [Table 1-15]. The frequency of exceedances of the chronic ALS [MDEQ, 2012a] in 2015 (49%; 33 of 68 samples) was lower than in 2014 (75%; 51 of 68 samples), 2013 (61%; 39 of 64 samples), 2012 (66%; 37 of 56 samples), 2011 (68%; 38 of 56 samples) and 2010 (79%; 44 of 56 samples).

Copper compliance ratios appear to have declined, or remained steady, since 2005 at all stations where compliance ratios have been evaluated [Figure 1-53 through Figure 1-58]. The greatest decrease in compliance ratios has occurred recently at the station below the Stewart Street at Opportunity; from 20.00 in 2011 to <1.00 in 2015 [Figure 1-58].

Copper loads generally increased at each downstream site between the above Butte Reduction Works site downstream to the below Browns Gulch site [Figure 1-59]. Copper loads were steady in Silver Bow Creek from below Browns Gulch to Reach P during most quarterly monitoring events [Figure 1-59]. Downstream from Reach P, copper loads generally increased at each downstream site [Figure 1-59]. The greatest increase in copper loads between adjacent sites occurred between Reach P and the below Stewart Street at Opportunity site in Q2 2015 [Figure 1-59]. Overall, total recoverable copper loads calculated for 2015 for the downstream monitoring stations on Silver Bow Creek were lower than loads observed from 2010-2014.

Table 1-15. Total recoverable copper concentrations (mg/L) at Streamside Tailings Operable Unit monitoring stations, 2015.

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	0.006	0.006	0.005	0.003
SS-05A	Silver Bow Creek above Butte Reduction Works	0.007	0.009	0.005	0.015
SS-06G	Silver Bow Creek above WWTP	0.007	0.011	0.009	0.019
SS-07	Silver Bow Creek below WWTP	0.010	0.011	0.011	0.015
SS-08	Silver Bow Creek at Rocker	0.015	0.014	0.008	0.026
SS-10A	Silver Bow Creek above Sand Creek	0.028	0.025	0.013	0.052
SS-10B	Silver Bow Creek below Sand Creek	0.027	0.025	0.014	0.049
SS-11C	Silver Bow Creek above Browns Gulch	0.028	0.028	0.017	0.030
SS-11D	Silver Bow Creek below Browns Gulch	0.022	0.025	0.018	0.028
SS-13	Silver Bow Creek in Reach L	0.023	0.027	0.019	0.033
SS-14	Silver Bow Creek at Miles Crossing	0.022	0.024	0.021	0.032
SS-15A	Silver Bow Creek above German Gulch	0.025	0.022	0.012	0.016
SS-15G	German Gulch near confluence	0.002	0.003	0.002	ND
SS-15B	Silver Bow Creek below German Gulch	0.019	0.012	0.009	0.013
SS-16	Silver Bow Creek in Reach P near Fairmont	0.018	0.013	0.009	0.023
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	0.021	0.020	0.013	0.015
SS-19	Silver Bow Creek at Frontage Road	0.021	0.020	0.013	0.016

ND Not detected at analytical reporting limit.

Exceeds the chronic aquatic life standard [MDEQ, 2012a].

Exceeds the acute aquatic life standard [MDEQ, 2012a].

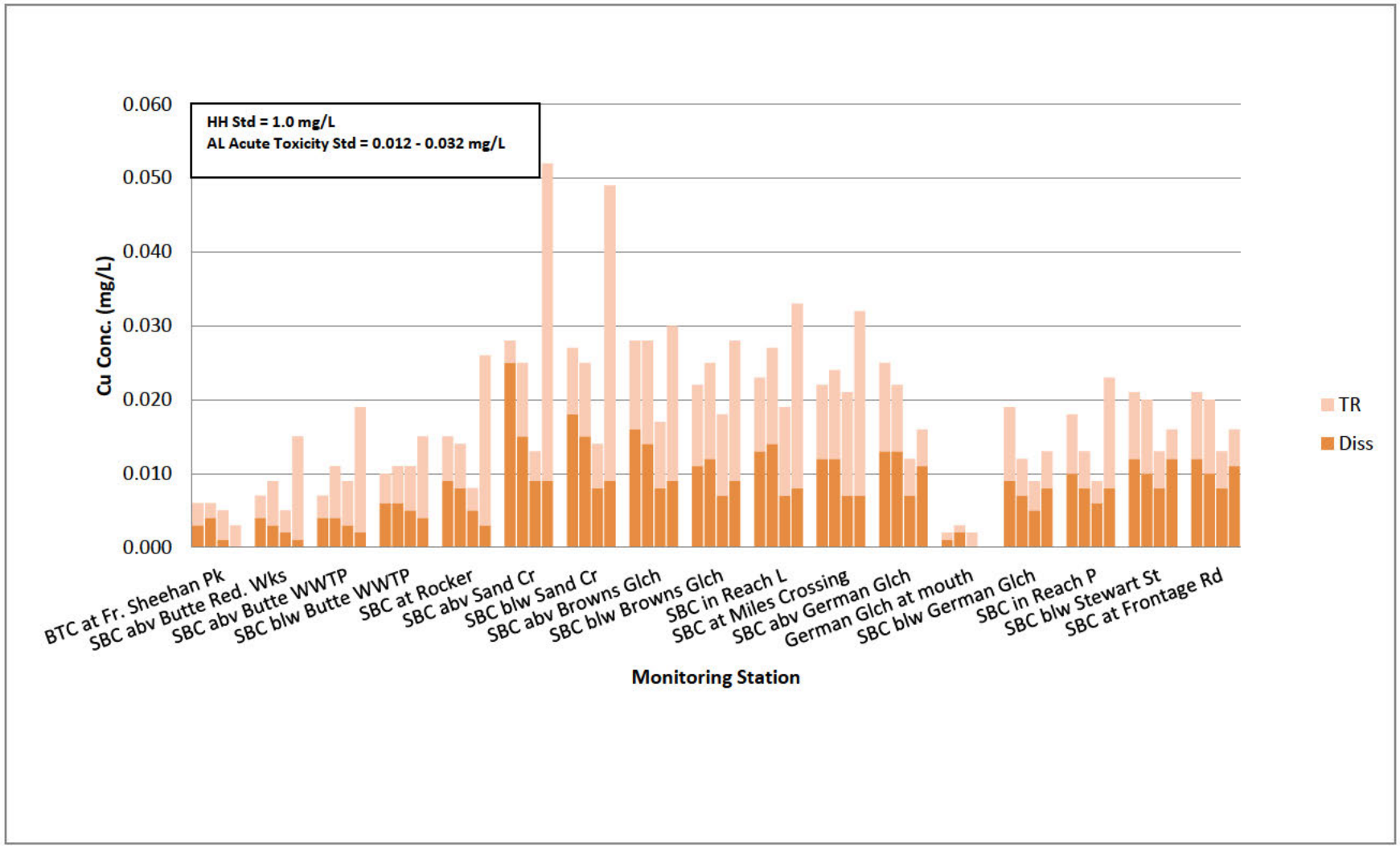

Figure 1-51. Total recoverable (TR) and dissolved (Diss) copper concentrations at Streamside Tailings Operable Unit monitoring stations, 2015. Human health (HH Std) and aquatic life toxicity (AL Acute/Chronic Toxicity Std) standards for total recoverable copper are shown for reference. Missing bars indicate concentrations below the analytical reporting limit.

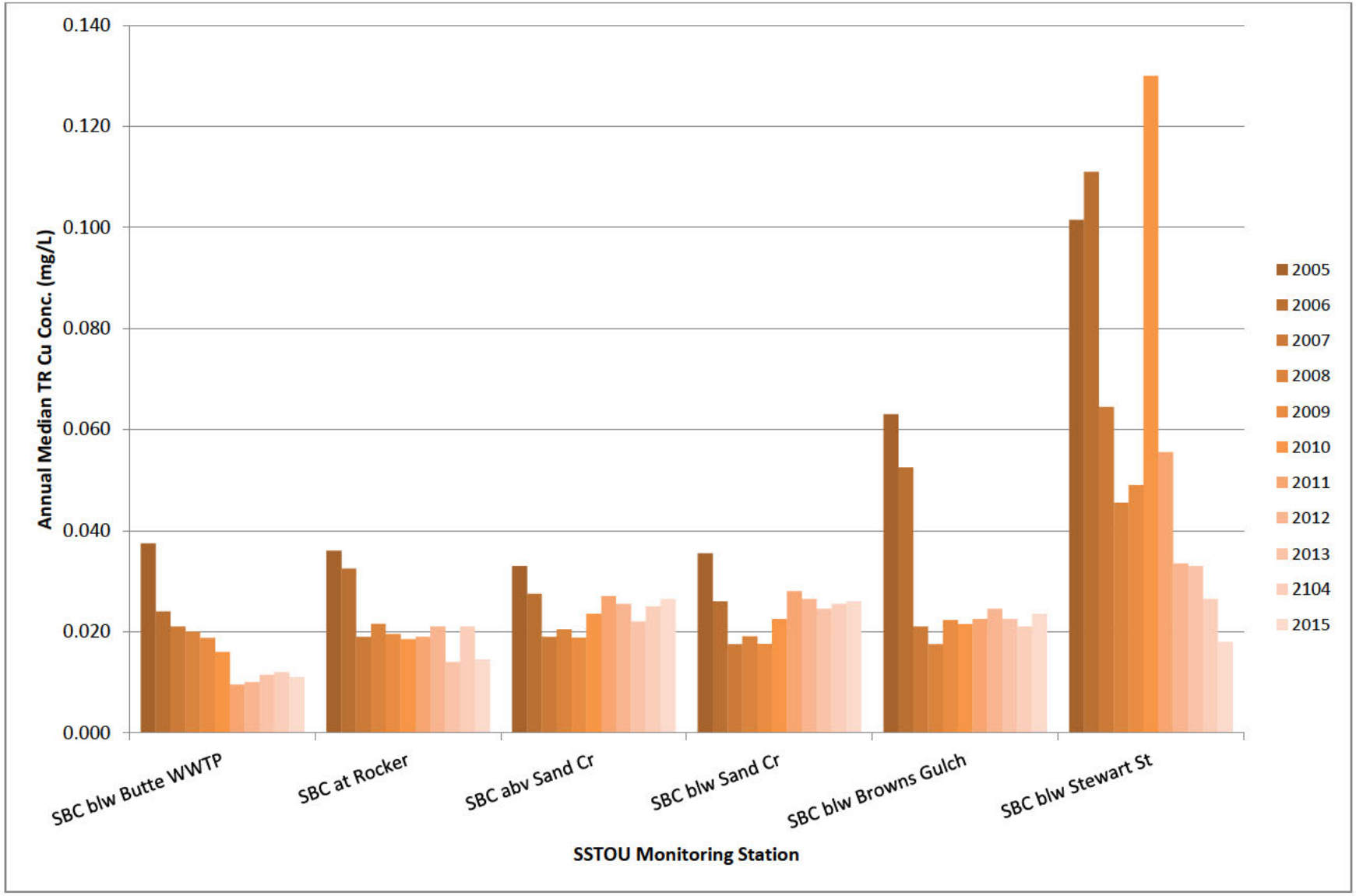

Figure 1-52. Annual median total recoverable copper concentrations at selected Streamside Tailings Operable Unit monitoring stations, 2005–2015.

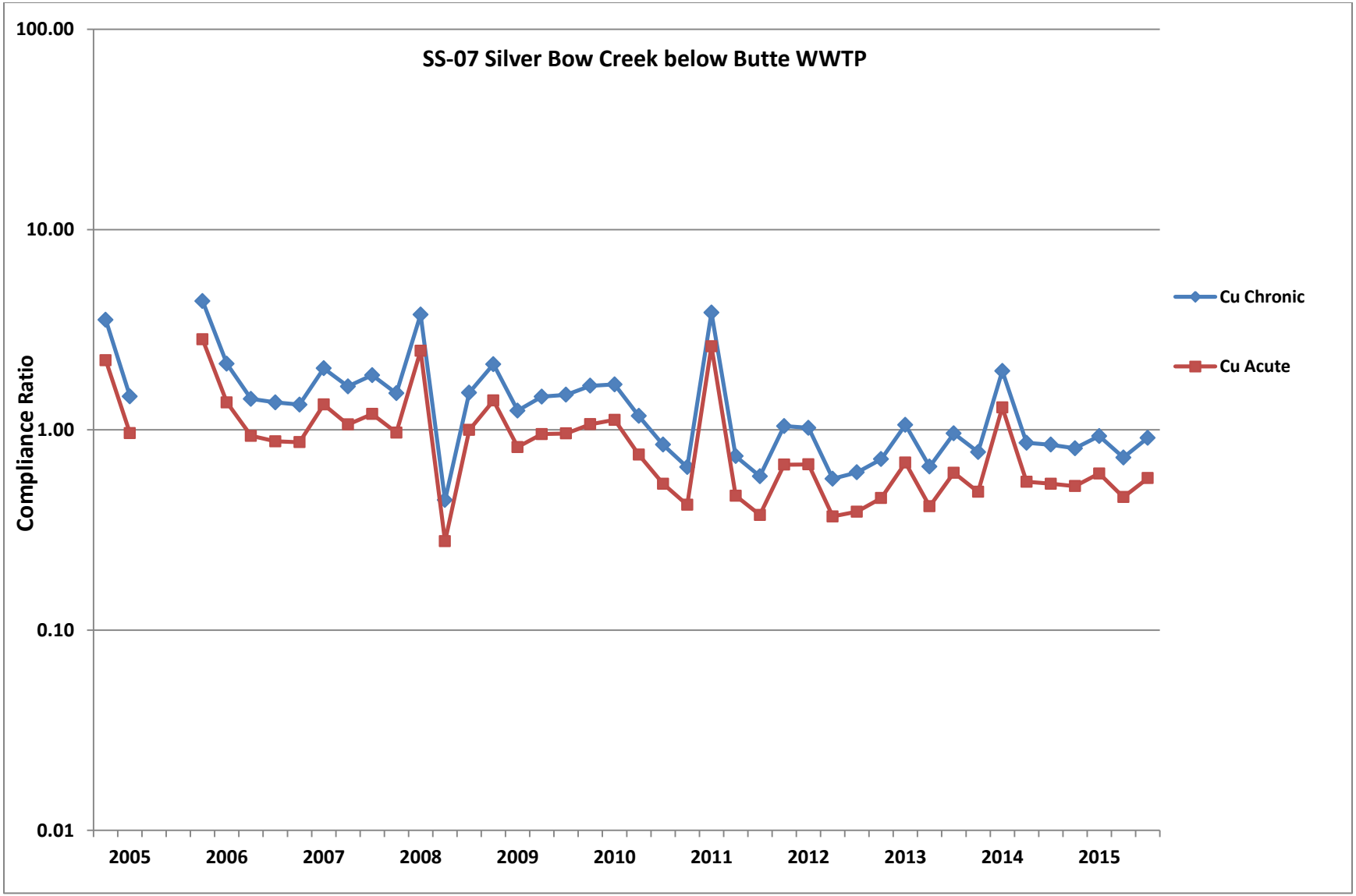

Figure 1-53. Total recoverable copper compliance ratios for Silver Bow Creek below the Butte WWTP, 2005–2015. Compliance ratios computed from quarterly measurements.

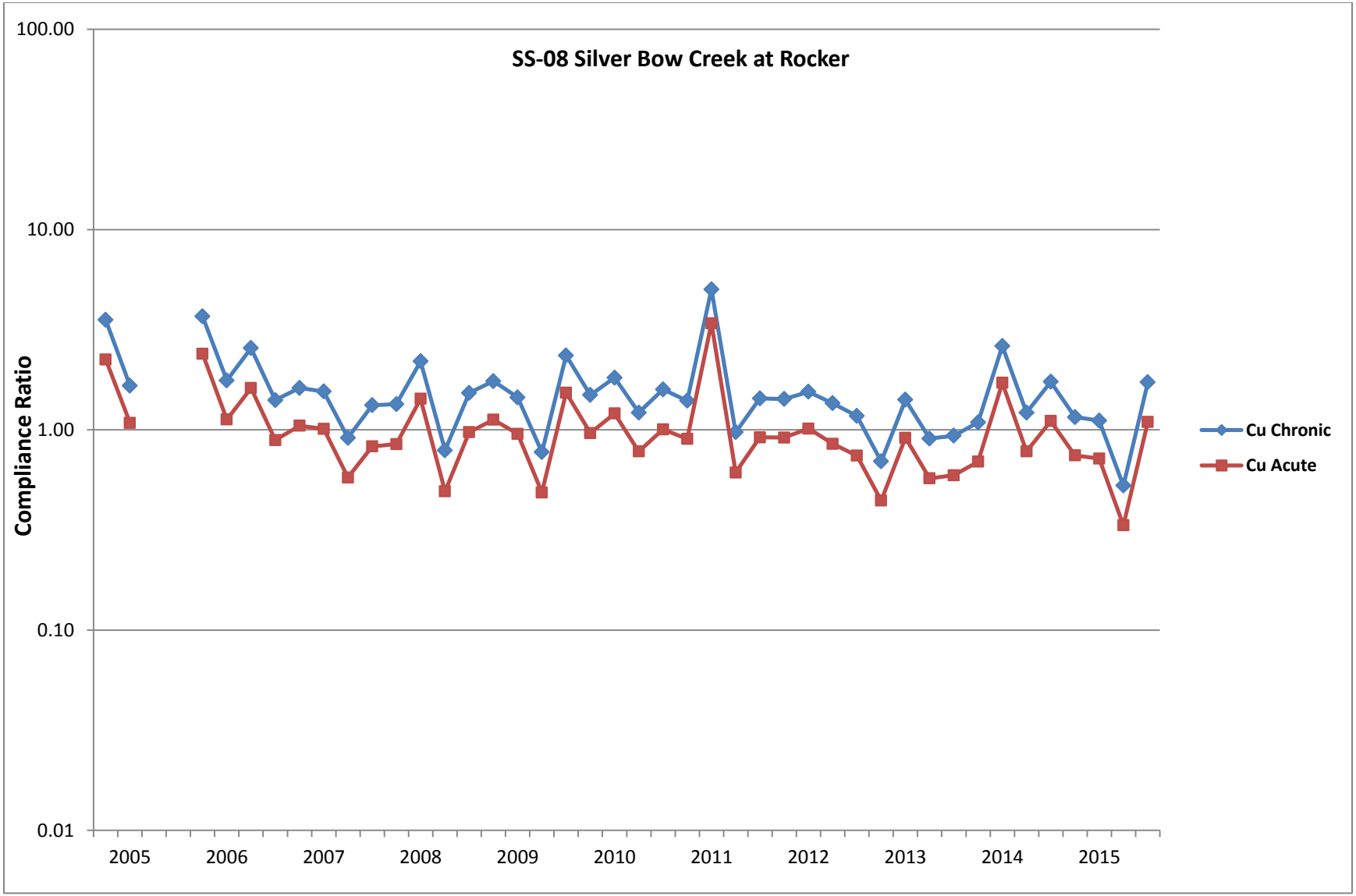

Figure 1-54. Total recoverable copper compliance ratios for Silver Bow Creek at Rocker, 2005–2015. Compliance ratios computed from quarterly measurements.

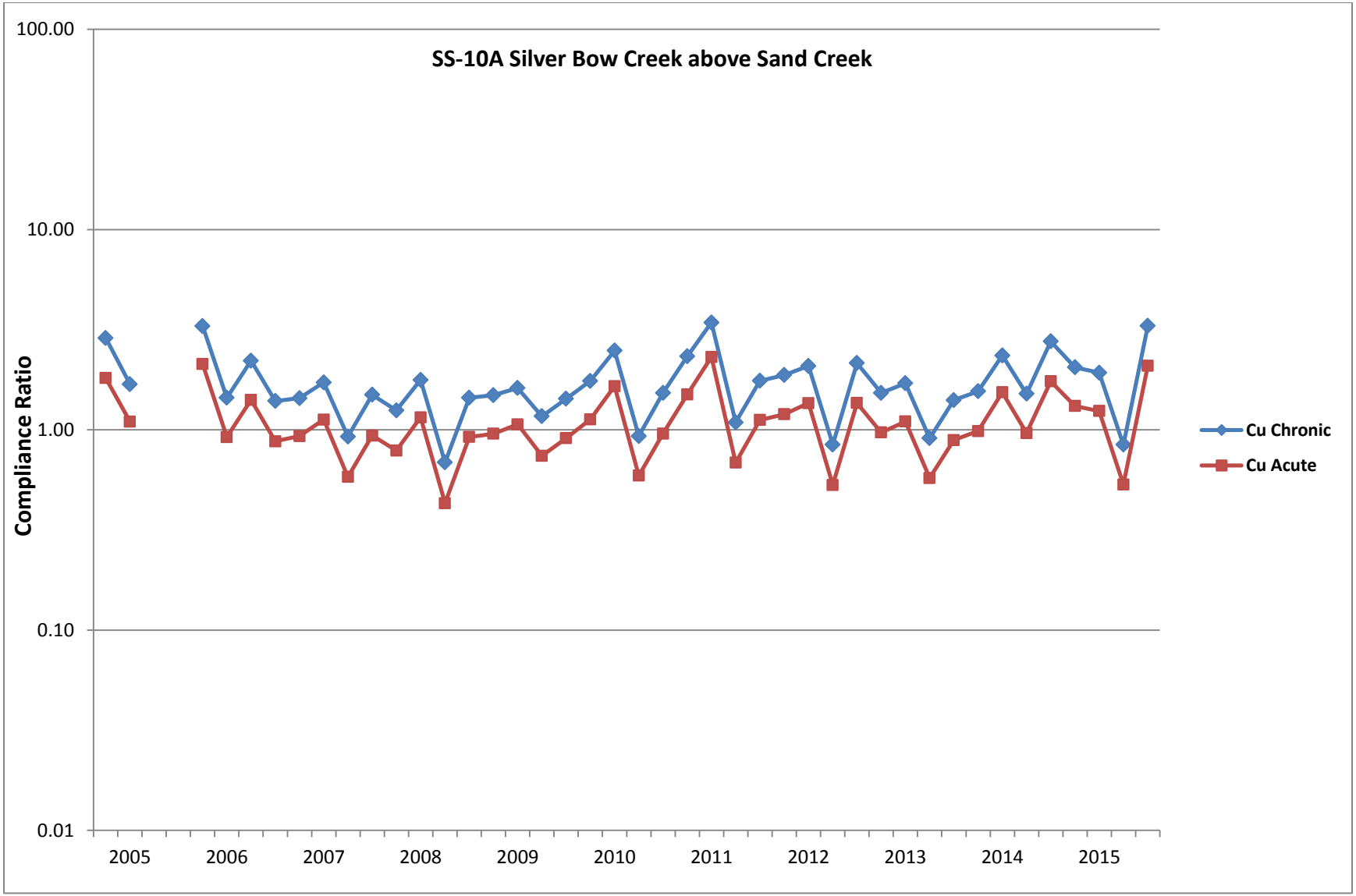

Figure 1-55. Total recoverable copper compliance ratios for Silver Bow Creek above Sand Creek, 2005–2015. Compliance ratios computed from quarterly measurements.

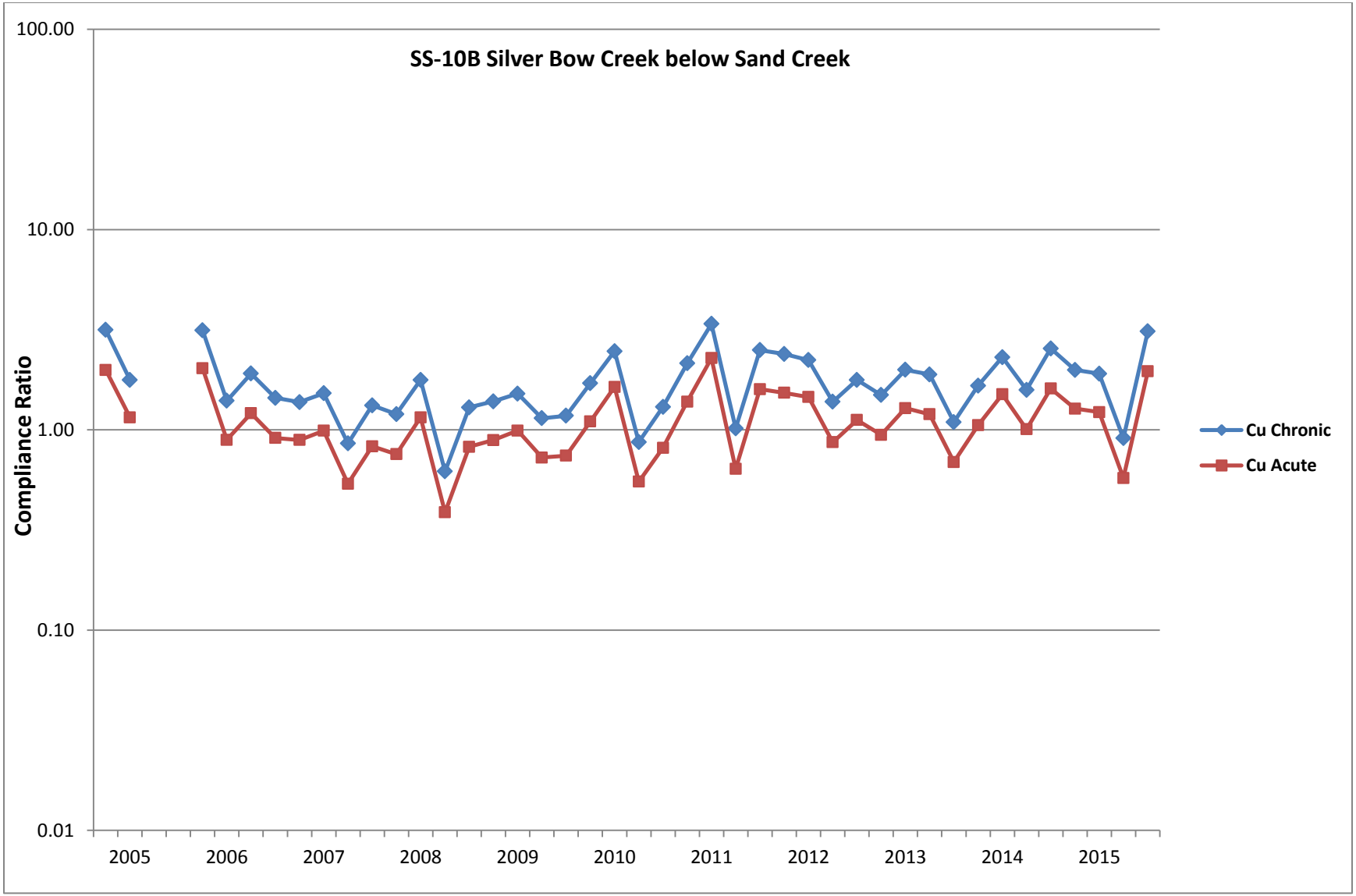

Figure 1-56. Total recoverable copper compliance ratios for Silver Bow Creek below Sand Creek, 2005–2015. Compliance ratios computed from quarterly measurements.

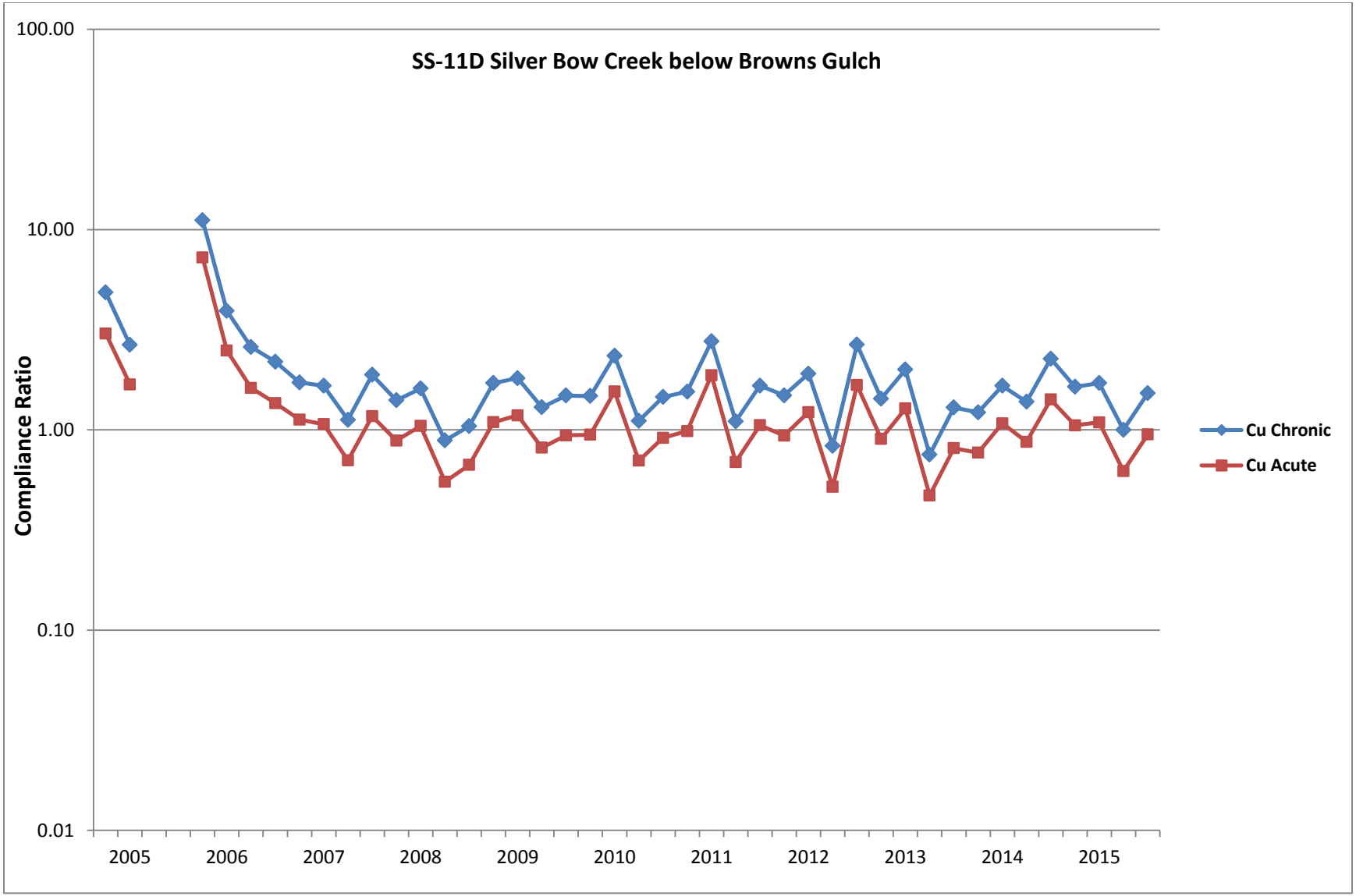

Figure 1-57. Total recoverable copper compliance ratios for Silver Bow Creek below Browns Gulch, 2005–2015. Compliance ratios computed from quarterly measurements.

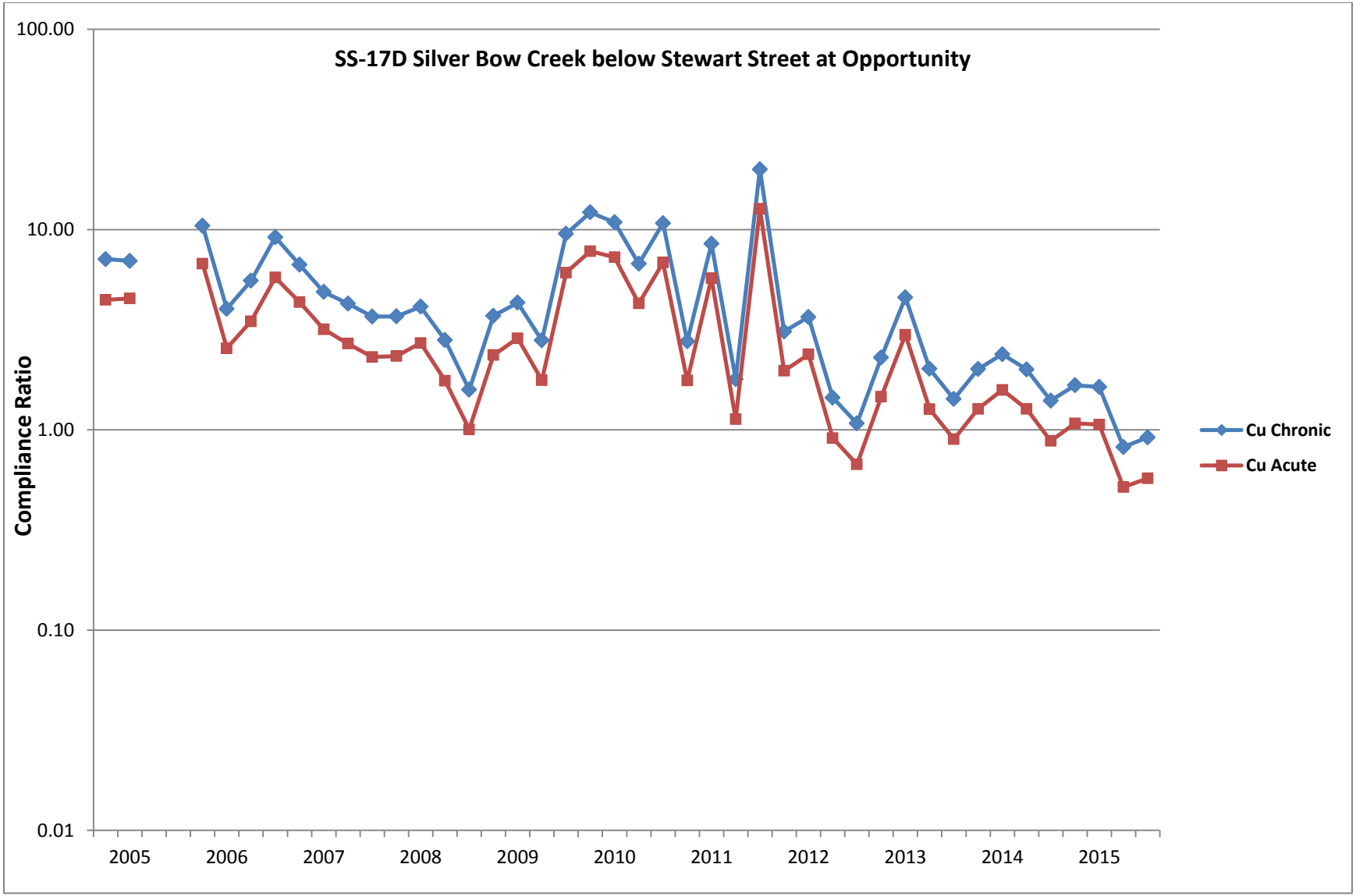

Figure 1-58. Total recoverable copper compliance ratios for Silver Bow Creek below Stewart Street at Opportunity, 2005–2015. Compliance ratios computed from quarterly measurements.

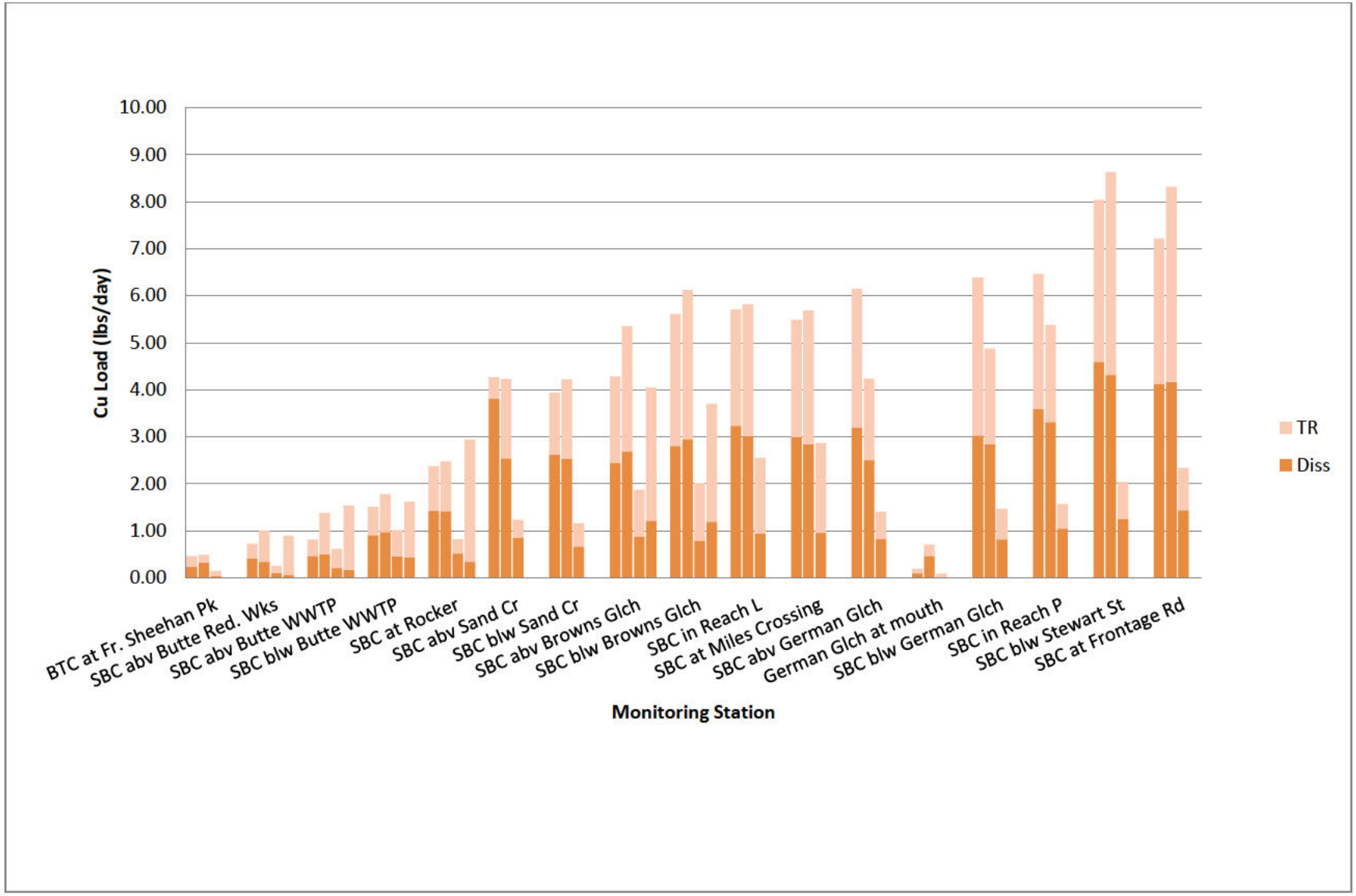

Figure 1-59. Total recoverable (TR) and dissolved (Diss) copper loads at Streamside Tailings Operable Unit monitoring stations, 2015. No bars indicate no measureable loads or missing streamflow data.

1.4.5.4 Lead

Total recoverable lead concentrations in the SSTOU in 2015 ranged from <0.0003-0.0088 mg/L [Table 1-16] and dissolved concentrations ranged from <0.0003-0.0004 mg/L. The spatial pattern for lead concentrations at SSTOU monitoring stations was not particularly distinct [Figure 1-60]. In Q1, Q2, and Q3, total recoverable lead concentrations at all sites (except Blacktail Creek at Father Sheehan Park and German Gulch) were <0.0030 mg/L [Figure 1-60]. However, in Q4 ten sites had lead concentrations >0.003 mg/L and five sites had concentrations >0.0050 mg/L [Figure 1-60].

All samples from German Gulch and Blacktail Creek at Father Sheehan Park had lead concentrations <0.0009 mg/L [Table 1-16].

Dissolved lead concentrations were low (<0.0003-0.0004 mg/L) and dissolved lead contributed a small proportion of the sample fraction in all samples [Figure 1-60].

Total recoverable lead concentrations in the SSTOU in 2015 were similar to concentrations observed in prior years (2010-2014). However, the annual maximum concentrations in 2015 were generally below the maximum concentrations in each of those prior years except 2010. Since 2005, median annual total recoverable lead concentrations have remained steady (with some annual variation) in Silver Bow Creek below the Butte WWTP, at Rocker, above and below Sand Creek, and below Browns Gulch [Figure 1-61]. However, median annual total recoverable lead concentrations have decreased steadily at Silver Bow Creek below Stewart Street at Opportunity [Figure 1-61]. As of 2015, median lead concentrations at Opportunity were similar to concentrations below the Butte WWTP, at Rocker, above and below Sand Creek, and below Browns Gulch [Figure 1-61]. Median total recoverable lead concentrations in Silver Bow Creek below Browns Gulch have declined sharply from 2005-2007, but appear to have stabilized since 2007 [Figure 1-61].

Exceedances of the lead chronic ALS [MDEQ, 2012a] occurred at three sites in 2015, all during Q4 [Table 1-16]. During Q4, the three Silver Bow Creek stations between Rocker and below Sand Creek exceeded the chronic ALS [MDEQ, 2012a] [Table 1-16]. The frequency of exceedances of the chronic ALS [MDEQ, 2012a] in 2015 (4%; 3 of 68 samples) was lower than in previous years: 2014 (10%; 7 of 68 samples), 2013 (14%; 9 of 64 samples), 2012 (16%; 9 of 56 samples), 2011 (25%; 14 of 56 samples) and 2010 (30%; 17 of 56 samples).

Lead compliance ratios appear to have remained steady at all stations where compliance ratios have been evaluated with the exception of Silver Bow Creek below Stewart Street at Opportunity [Figure 1-62 through Figure 1-67]. At Silver Bow Creek below Stewart Street at Opportunity, chronic compliance ratios have decreased from a peak of 9.62 in 2011 to <1.00 for all samples since Q3 of 2014 [Figure 1-67].

In 2015, lead loads increased sequentially at each downstream site upstream from Subarea 1 (from Blacktail Creek at Father Sheehan Park to Silver Bow Creek below the Butte WWTP), then decreased or remained approximately steady between adjacent sites through Subarea 1 (from Silver Bow Creek below the Butte WWTP to Silver Bow Creek below Sand Creek), then increased through the upper half of Subarea 2 (from Silver Bow Creek below Sand Creek to Silver Bow Creek below Browns Gulch), then remained steady or declined downstream

throughout the lower half of Subarea 2 and Subarea 3 (from Silver Bow Creek below Browns Gulch to Silver Bow Creek in Reach P), and then increased in the first half of Subarea 4 (between Silver Bow Creek in Reach P and Silver Bow Creek below Stewart Street at Opportunity) and then leveled off downstream through the lower half of Subarea 4 (to Silver Bow Creek at Frontage Road [Figure 1-68]. Seasonally, lead loads were highest in Q2 and Q4 [Figure 1-68].

Table 1-16. Total recoverable lead concentrations (mg/L) at Streamside Tailings Operable Unit monitoring stations, 2015.

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	0.0009	0.0007	0.0003	0.0006
SS-05A	Silver Bow Creek above Butte Reduction Works	0.0013	0.0021	0.0017	0.0053
SS-06G	Silver Bow Creek above WWTP	0.0011	0.0027	0.0014	0.0061
SS-07	Silver Bow Creek below WWTP	0.0011	0.0026	0.0012	0.0034
SS-08	Silver Bow Creek at Rocker	0.0018	0.0019	0.0011	0.0072
SS-10A	Silver Bow Creek above Sand Creek	0.0015	0.0017	0.0009	0.0088
SS-10B	Silver Bow Creek below Sand Creek	0.0012	0.0018	0.0009	0.0084
SS-11C	Silver Bow Creek above Browns Gulch	0.0016	0.0020	0.0016	0.0035
SS-11D	Silver Bow Creek below Browns Gulch	0.0017	0.0026	0.0017	0.0034
SS-13	Silver Bow Creek in Reach L	0.0016	0.0028	0.0025	0.0048
SS-14	Silver Bow Creek at Miles Crossing	0.0015	0.0023	0.0026	0.0045
SS-15A	Silver Bow Creek above German Gulch	0.0023	0.0019	0.0014	0.0012
SS-15G	German Gulch near confluence	0.0003	0.0003	ND	ND
SS-15B	Silver Bow Creek below German Gulch	0.0017	0.0011	0.0010	0.0009
SS-16	Silver Bow Creek in Reach P near Fairmont	0.0011	0.0009	0.0009	0.0022
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	0.0016	0.0020	0.0013	0.0009
SS-19	Silver Bow Creek at Frontage Road	0.0018	0.0022	0.0013	0.0013

ND Not detected at analytical reporting limit.

Exceeds the chronic aquatic life standards [MDEQ, 2012a].

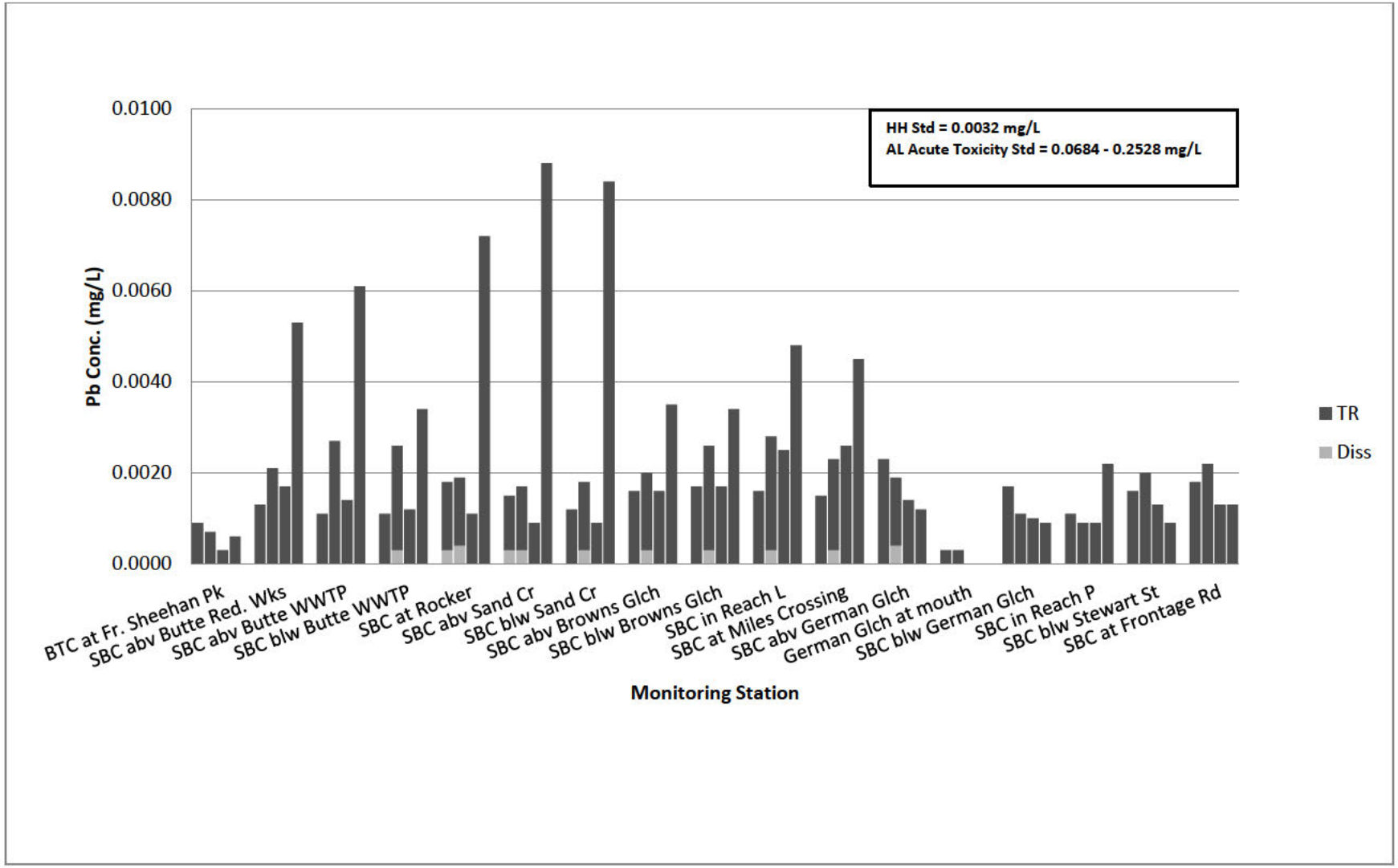

Figure 1-60. Total recoverable (TR) and dissolved (Diss) lead concentrations at Streamside Tailings Operable Unit monitoring stations, 2015. Human health (HH Std) and aquatic life toxicity (AL Acute/Chronic Toxicity Std) standards for total recoverable lead are shown for reference. Missing bars indicate concentrations below the analytical reporting limit.

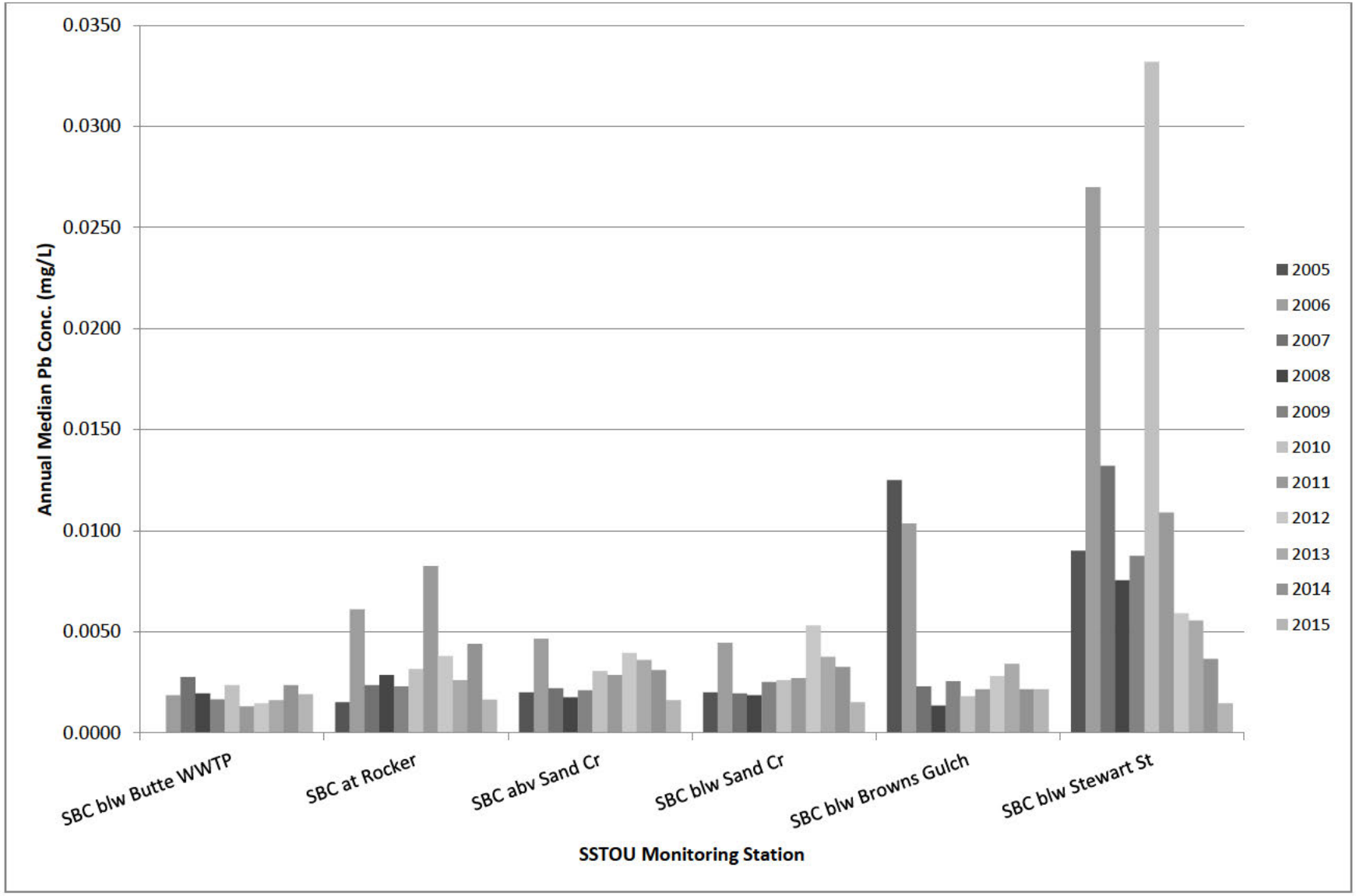

Figure 1-61. Annual median total recoverable lead concentrations at selected Streamside Tailings Operable Unit monitoring stations, 2005–2015.

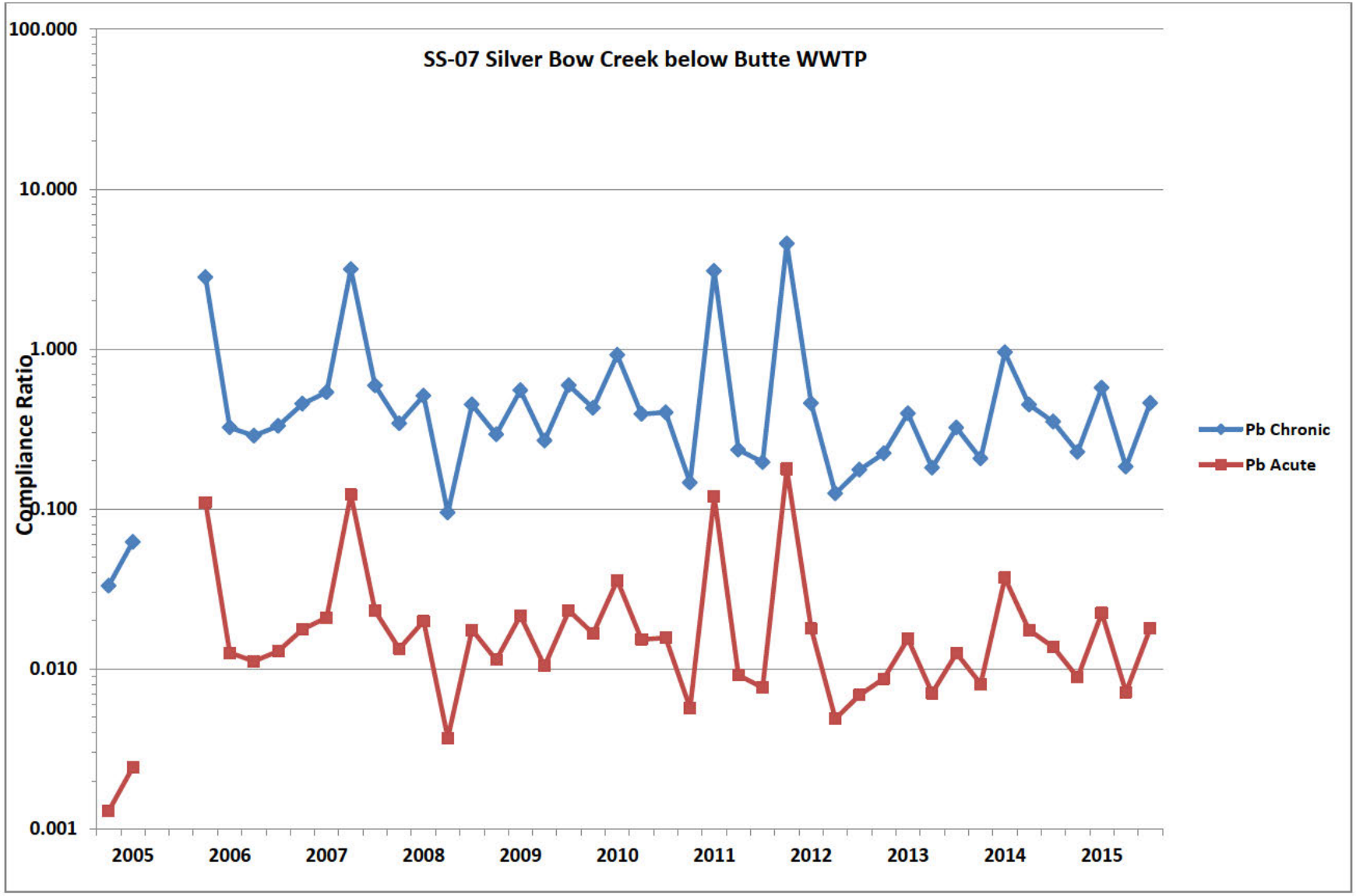

Figure 1-62. Total recoverable lead compliance ratios for Silver Bow Creek below the Butte wastewater treatment plant discharge, 2005–2015. Compliance ratios computed from quarterly measurements.

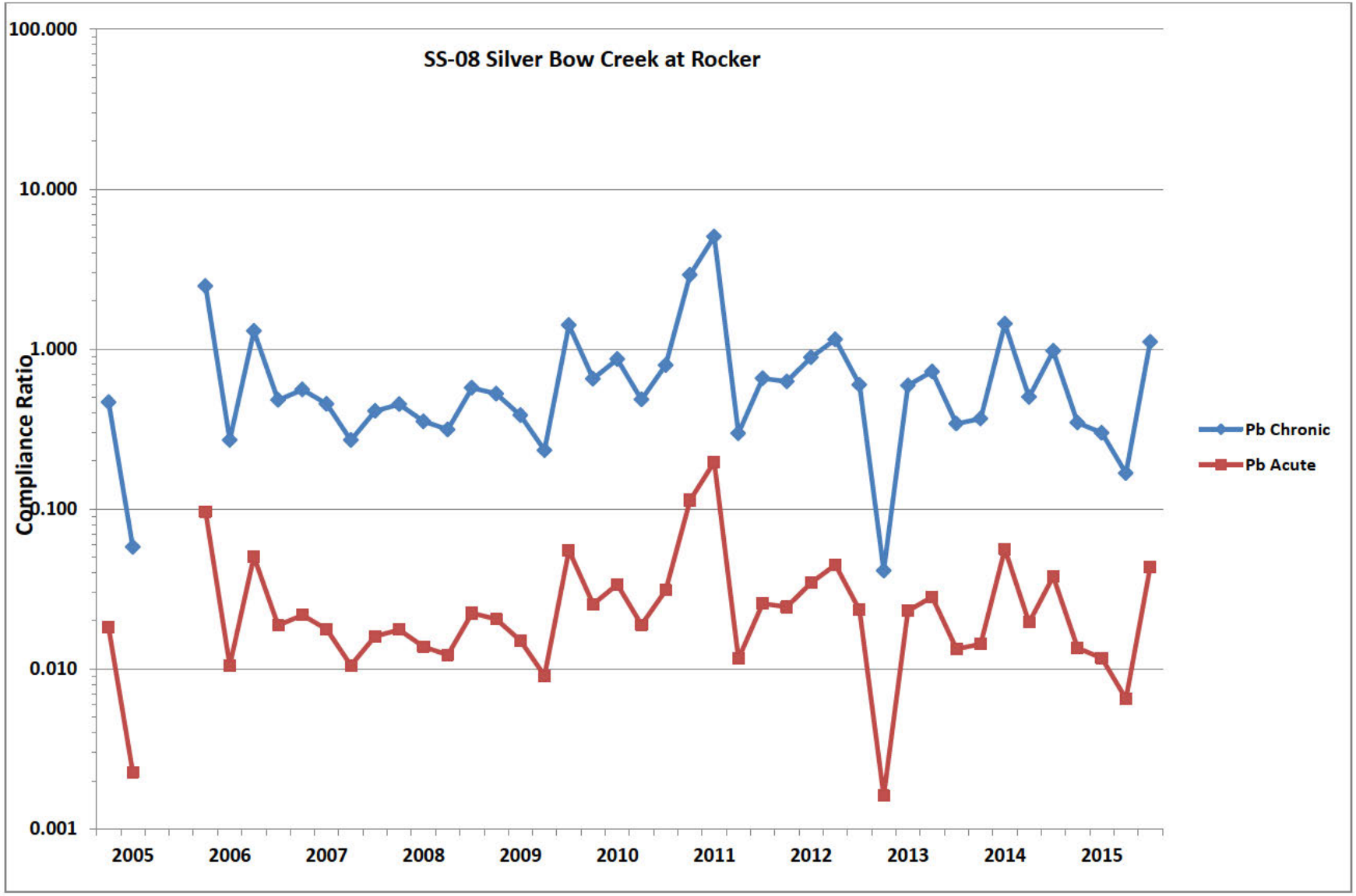

Figure 1-63. Total recoverable lead compliance ratios for Silver Bow Creek at Rocker, 2005–2015. Compliance ratios computed from quarterly measurements.

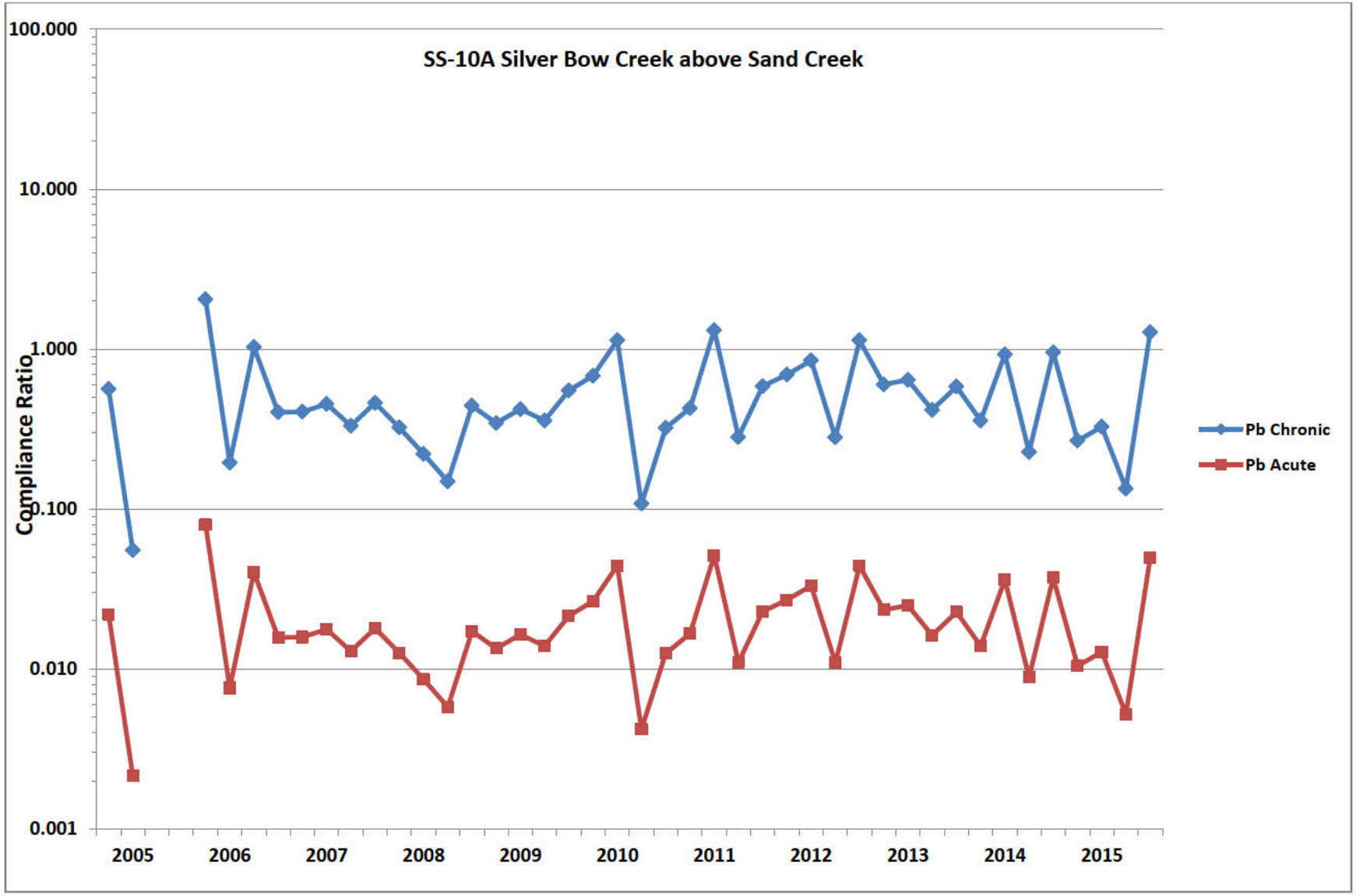

Figure 1-64. Total recoverable lead compliance ratios for Silver Bow Creek above Sand Creek, 2005–2015. Compliance ratios computed from quarterly measurements.

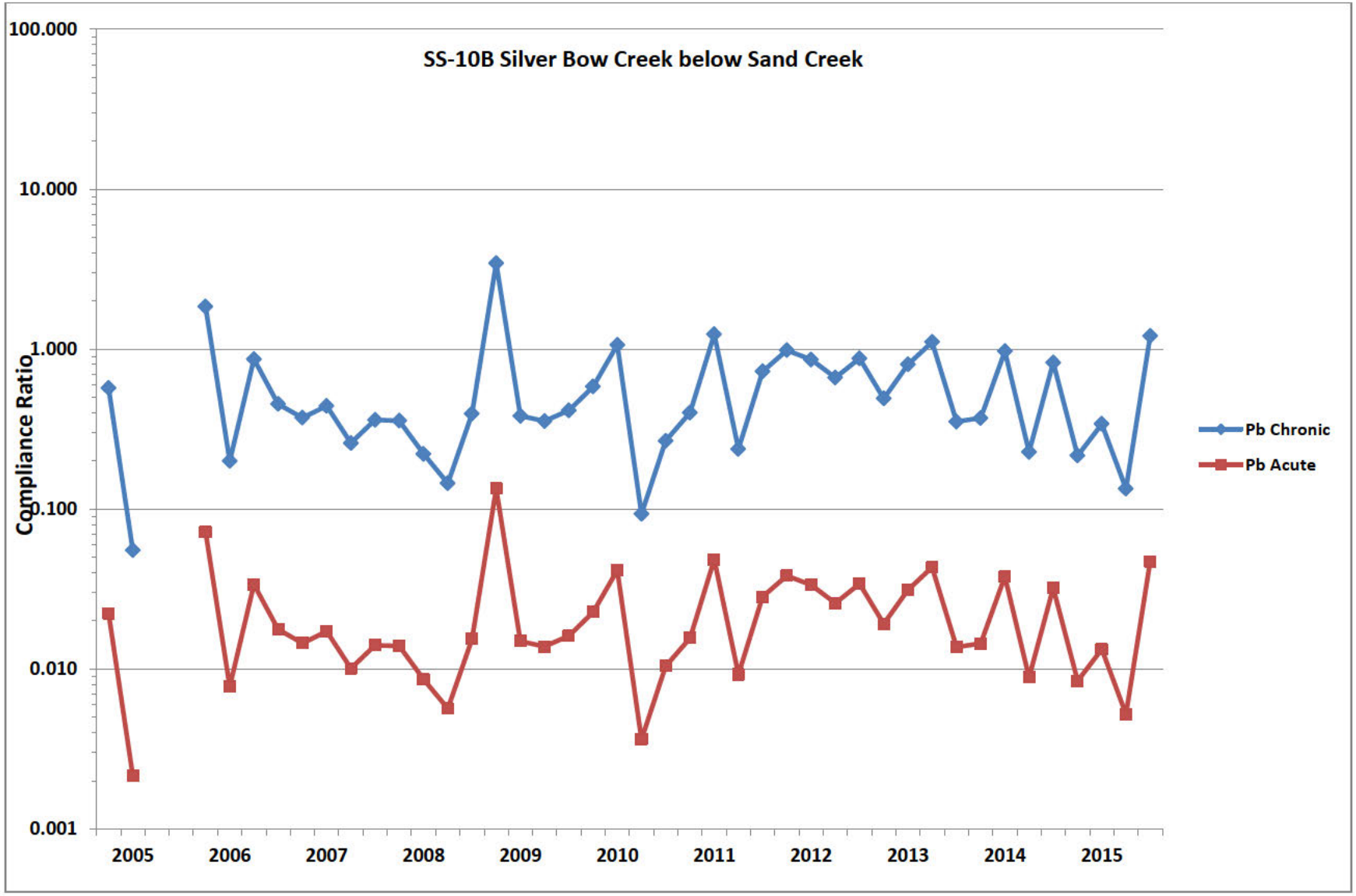

Figure 1-65. Total recoverable lead compliance ratios for Silver Bow Creek below Sand Creek, 2005–2015. Compliance ratios computed from quarterly measurements.

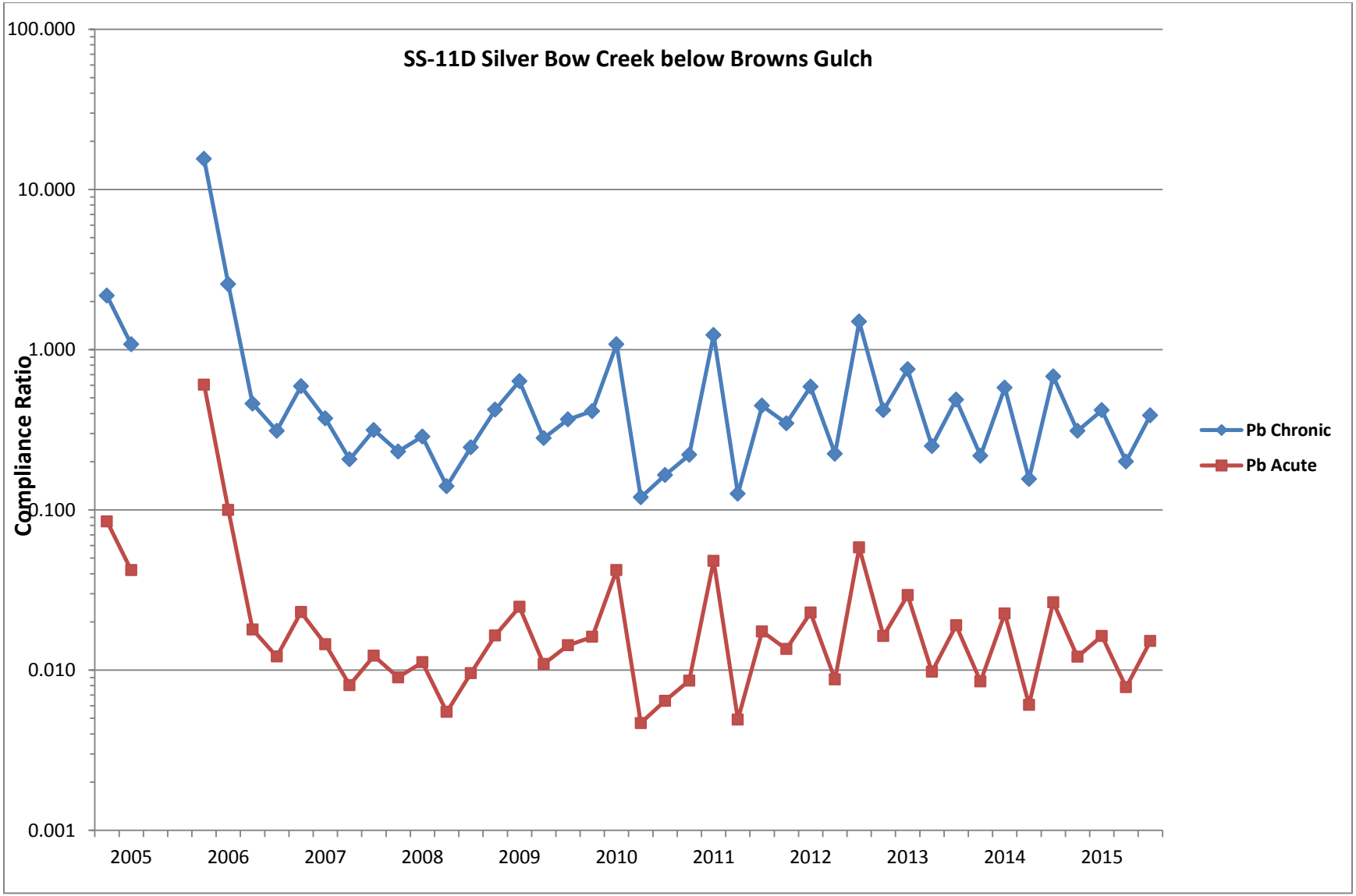

Figure 1-66. Total recoverable lead compliance ratios for Silver Bow Creek below Browns Gulch, 2005–2015. Compliance ratios computed from quarterly measurements.

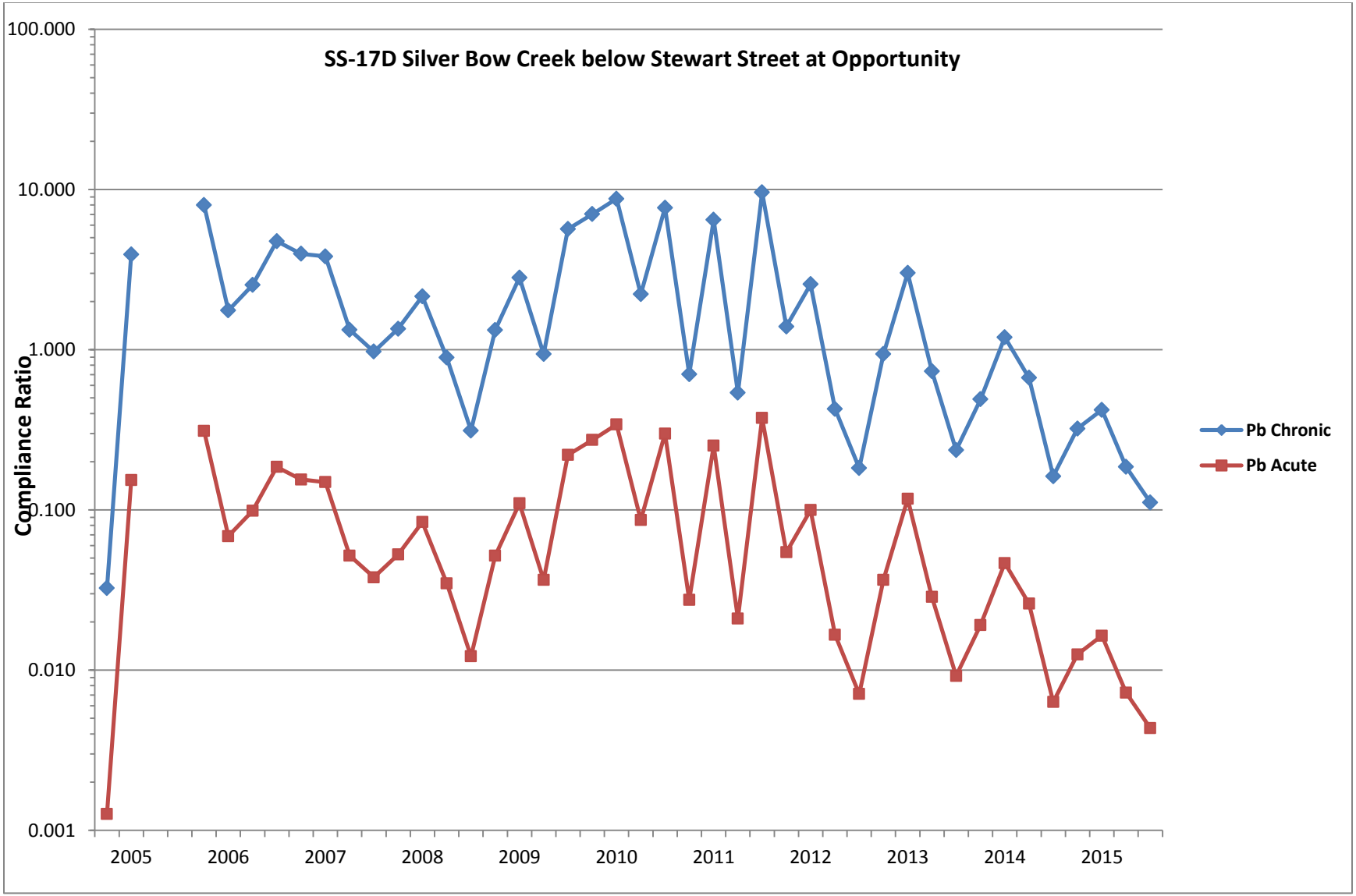

Figure 1-67. Total recoverable lead compliance ratios for Silver Bow Creek below Stewart Street at Opportunity, 2005–2015. Compliance ratios computed from quarterly measurements.

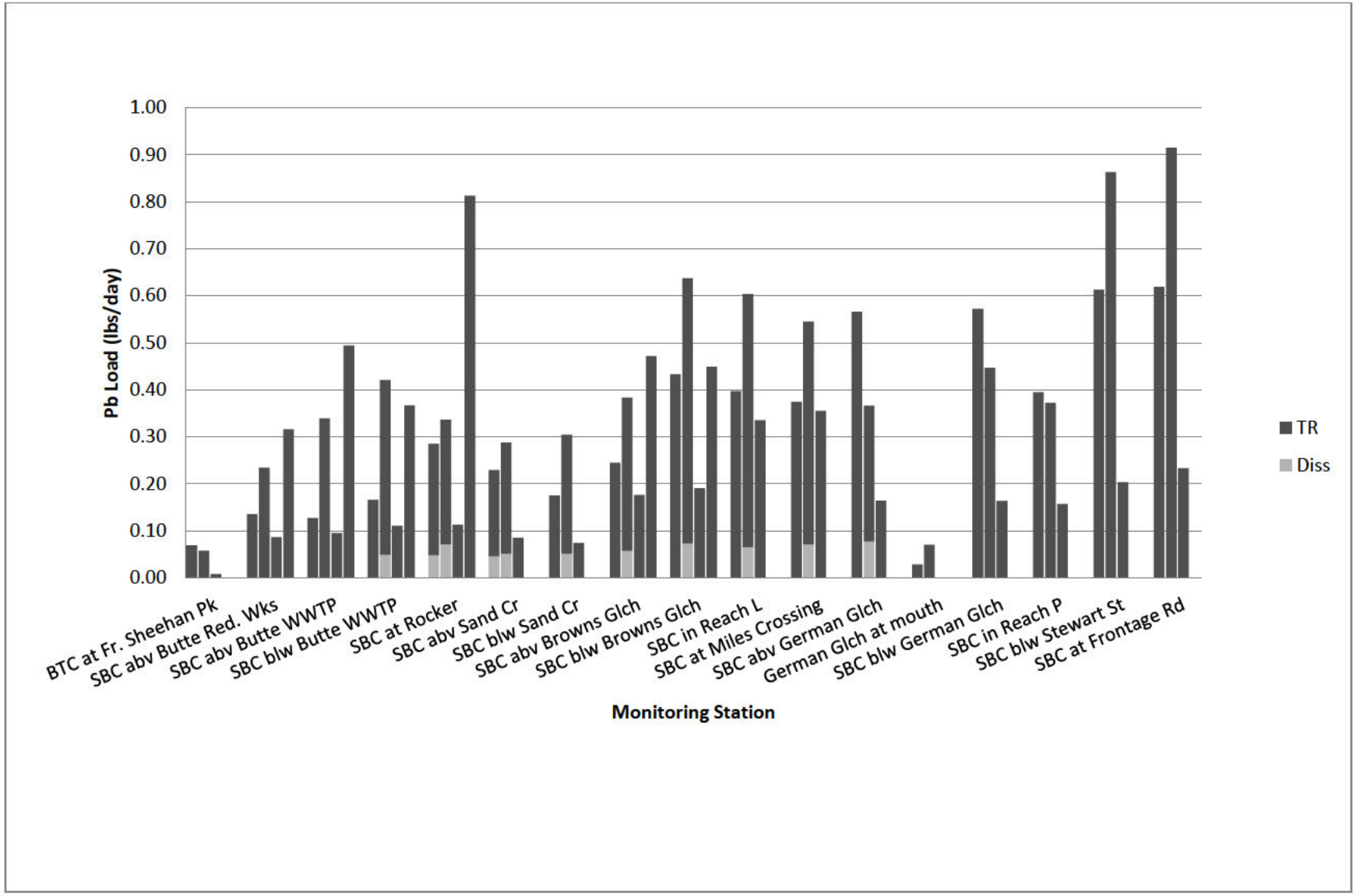

Figure 1-68. Total recoverable (TR) and dissolved (Diss) lead loads at Streamside Tailings Operable Unit monitoring stations, 2015. No bars indicate no measureable loads or missing streamflow data.

1.4.5.5 Mercury

Total recoverable mercury concentrations in the SSTOU in 2015 ranged from <0.000005-0.000028 mg/L [Table 1-17] and dissolved concentrations ranged from <0.000005-0.000009 mg/L. Mercury concentrations at SSTOU monitoring stations in 2015 did not show a marked spatial or temporal pattern [Figure 1-69]. The five samples with the highest mercury concentrations observed in 2015occurred at the Silver Bow Creek at Rocker, above and below Sand Creek, in Reach L, and at Miles Crossing stations in Q4 [Figure 1-69]. The proportion of dissolved mercury in each sample was minimal throughout the SSTOU in 2015 [Figure 1-69]. Dissolved mercury was detected in only 10 of 68 samples and most of those concentrations were close to the analytical reporting limit of 0.000005 mg/L; the maximum dissolved mercury concentration was 0.000009 mg/L.

Comparison of mercury concentrations in the SSTOU in 2015 to some prior years is difficult because the analytical reporting limit for mercury decreased by an order of magnitude in 2014. Prior to 2014, the majority of the samples had mercury concentrations below the analytical reporting limit (0.00005 mg/L prior to 2014). During that period, the highest concentrations of mercury were typically observed at the downstream (Subarea 4) monitoring stations, particularly Silver Bow Creek below Stewart Street at Opportunity. However, in 2015 the highest mercury concentrations were observed at sites in Subarea 1 and 2 in Q4 [Figure 1-69]. Comparison of maximum annual total recoverable mercury concentrations is possible because during all years (2010-2015) the annual maximum concentrations exceeded the reporting limit. The maximum mercury concentration in the SSTOU in 2015 was ≤20% of the maximum annual concentration observed between 2010-2014.

Due to the previous reporting limits, evaluation of temporal trends by site from comparison of annual median concentrations is not useful at most sites. However, The majority of the annual median total recoverable mercury concentrations = at Silver Bow Creek below Stewart Street at Opportunity since 2005 were above the reporting limits and it appears that the long-term trend at that site is decreasing [Figure 1-70]. However, this trend is highly leveraged by the elevated median mercury concentration in 2006 [Figure 1-70].

Exceedances of the mercury chronic ALS [MDHES, 1994] occurred at ten sites in 2015 [Table 1-17]. All but two Silver Bow Creek stations from above the WWTP to at Miles Crossing exceeded the chronic ALS [MDHES, 1994] during Q4 [Table 1-17]. The Silver Bow Creek in Reach L site exceeded the chronic ALS [MDHES, 1994] during three of four sample periods in 2015 [Table 1-17]. Other sites which exceeded the chronic ALS [MDHES, 1994] included Blacktail Creek at Father Sheehan Park (Q1), Silver Bow Creek below Stewart Street at Opportunity (Q2), and Silver Bow Creek at Frontage Road (Q2) [Table 1-17].

Compliance ratios for mercury concentrations at six SSTOU sites are depicted in Figure 1-71 through Figure 1-76. Evaluation of mercury compliance ratios through time are difficult to evaluate from these figures due to the relatively high reporting limits prior to 2014. The chronic ALS [MDHES, 1994] compliance ratios at most sites provide little insight because the vast majority of the sample concentrations prior to 2014 were below the analytical reporting limit and therefore unknown. Moreover, prior to 2014, the reporting limit was actually higher than

the chronic ALS [MDHES, 1994] and therefore it was not possible to determine if samples with "non-detect" concentrations had actually exceeded the standard. Compliance ratios at one site (Silver Bow Creek below Stewart Street at Opportunity) do appear to have declined in recent years although this apparent trend is based on a small number of samples [Figure 1-76].

Mercury loads remained relatively steady above the SSTOU downstream through Subarea 1 and then increased between the Silver Bow Creek below Sand Creek and above Browns Gulch sites [Figure 1-77]. Mercury loads then remained relatively steady downstream through Subarea 2, 3, and the upper half of Subarea 4 and increased again (in Q2 and Q3) below Stewart Street at Opportunity [Figure 1-77]. The largest seasonal mercury loads occurred during Q2 at the Silver Bow Creek site below Stewart Street at Opportunity.

Table 1-17. Total recoverable mercury concentrations (mg/L) at Streamside Tailings Operable Unit monitoring stations, 2015.

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	0.000016	ND	ND	ND
SS-05A	Silver Bow Creek above Butte Reduction Works	0.000012	0.000006	ND	0.000012
SS-06G	Silver Bow Creek above WWTP	0.000011	0.000007	ND	0.000013
SS-07	Silver Bow Creek below WWTP	0.000006	0.000007	ND	0.000012
SS-08	Silver Bow Creek at Rocker	0.000007	0.000009	0.000005	0.000021
SS-10A	Silver Bow Creek above Sand Creek	0.000008	0.000007	0.000007	0.000027
SS-10B	Silver Bow Creek below Sand Creek	ND	0.000010	0.000009	0.000028
SS-11C	Silver Bow Creek above Browns Gulch	0.000008	0.000009	0.000011	0.000013
SS-11D	Silver Bow Creek below Browns Gulch	0.000010	0.000012	0.000011	0.000012
SS-13	Silver Bow Creek in Reach L	0.000011	0.000016	0.000013	0.000027
SS-14	Silver Bow Creek at Miles Crossing	0.000010	0.000012	0.000012	0.000017
SS-15A	Silver Bow Creek above German Gulch	0.000010	0.000009	0.000009	ND
SS-15G	German Gulch near confluence	0.000009	ND	ND	ND
SS-15B	Silver Bow Creek below German Gulch	0.000005	0.000007	0.000008	ND
SS-16	Silver Bow Creek in Reach P near Fairmont	0.000005	0.000008	0.000007	0.000009
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	0.000013	0.000015	0.000007	ND
SS-19	Silver Bow Creek at Frontage Road	0.000011	0.000015	0.000008	0.000006

ND Not detected at analytical reporting limit.

Exceeds the chronic aquatic life standard [MDHES, 1994].

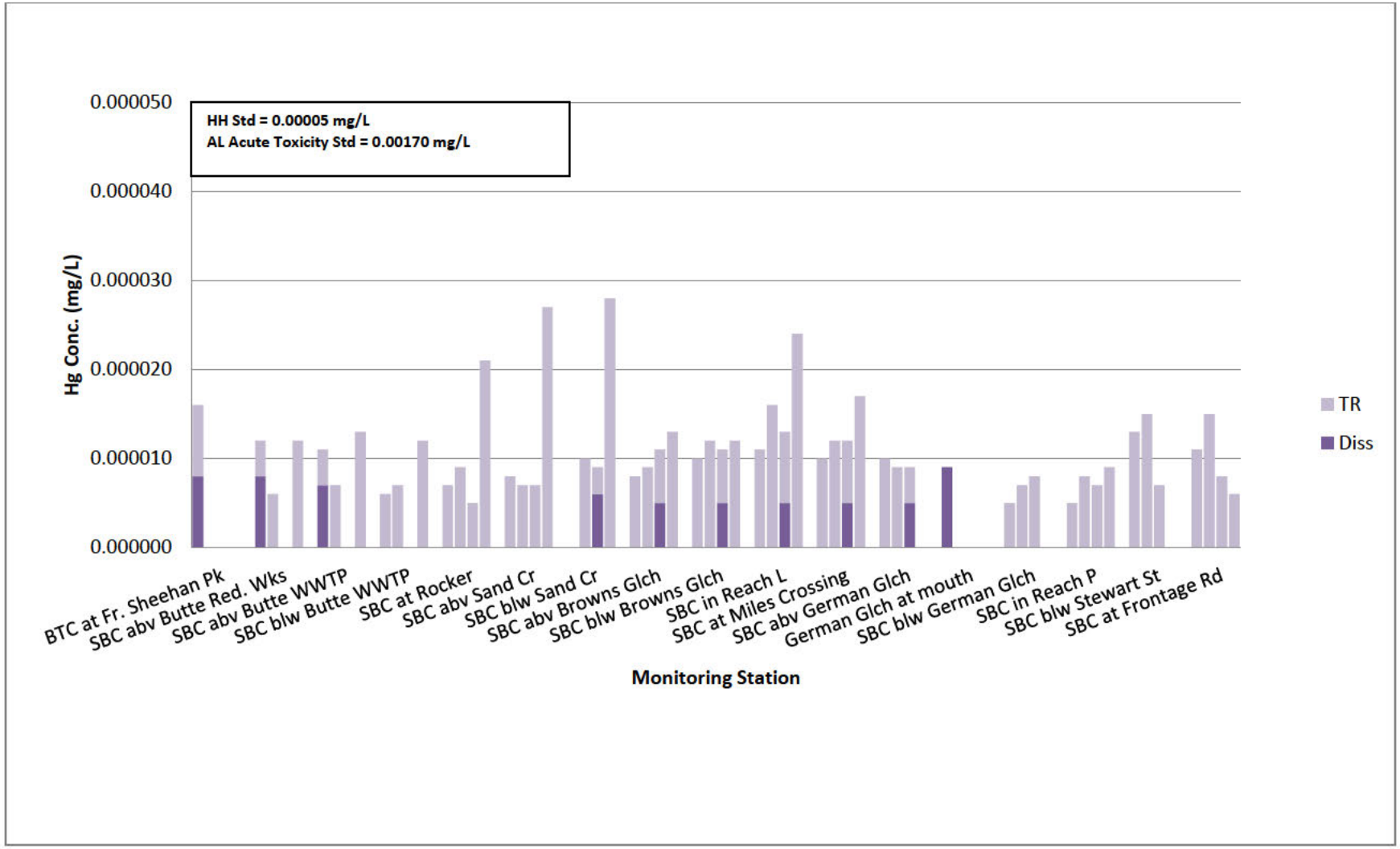

Figure 1-69. Total recoverable (TR) and dissolved (Diss) mercury concentrations at Streamside Tailings Operable Unit monitoring stations, 2015. Human health (HH Std) and aquatic life toxicity (AL Acute/Chronic Toxicity Std) standards for total recoverable mercury are shown for reference. Missing bars indicate values below the analytical reporting limit.

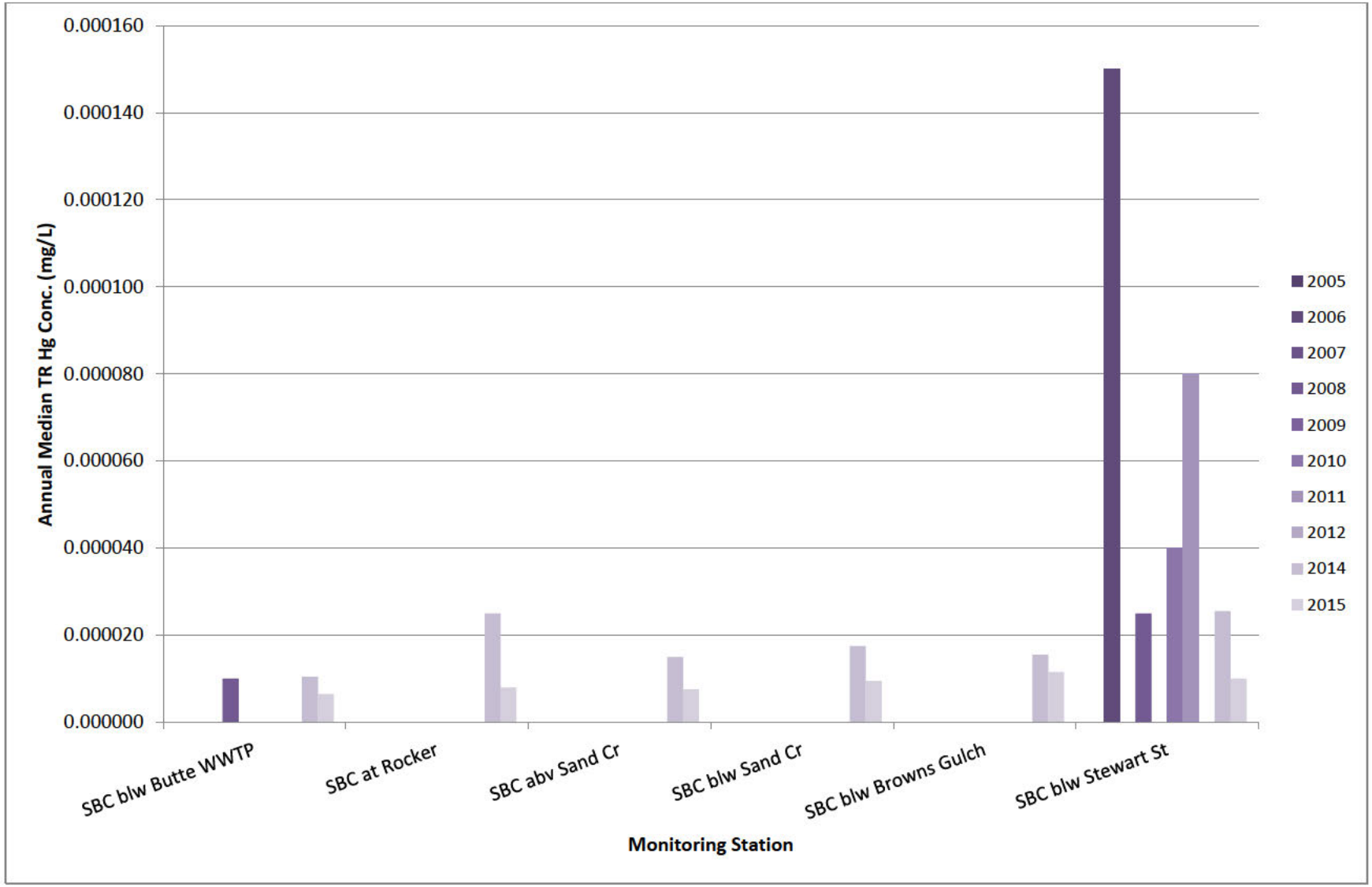

Figure 1-70. Annual median total recoverable mercury concentrations at selected Streamside Tailings Operable Unit monitoring stations, 2005–2015. Missing bars indicate values below the analytical reporting limit.

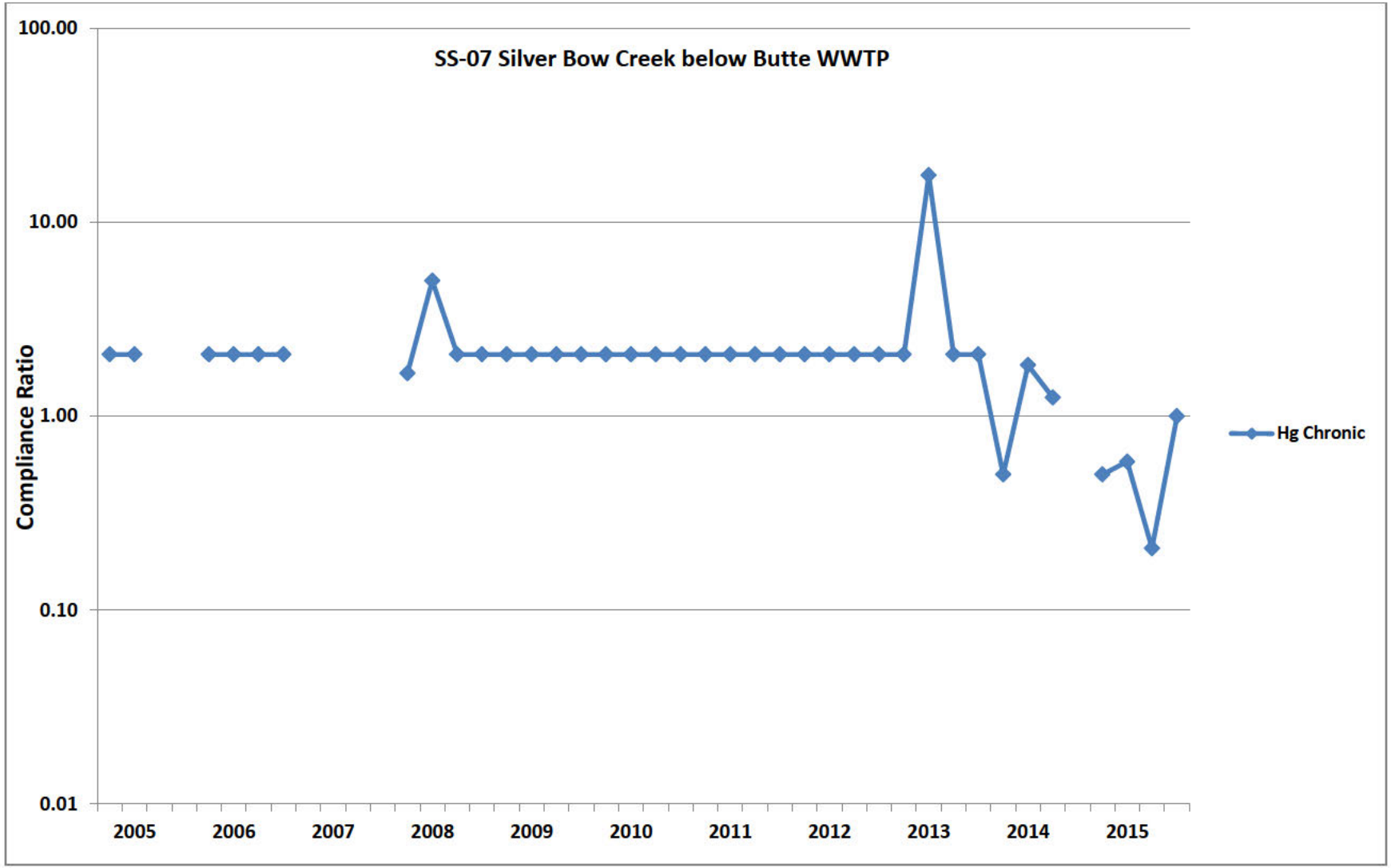

Figure 1-71. Total recoverable mercury compliance ratios for samples from Silver Bow Creek below the Butte wastewater treatment plant discharge, 2002–2015. Compliance ratios computed from quarterly measurements. Missing bars indicate values below the analytical reporting limit.

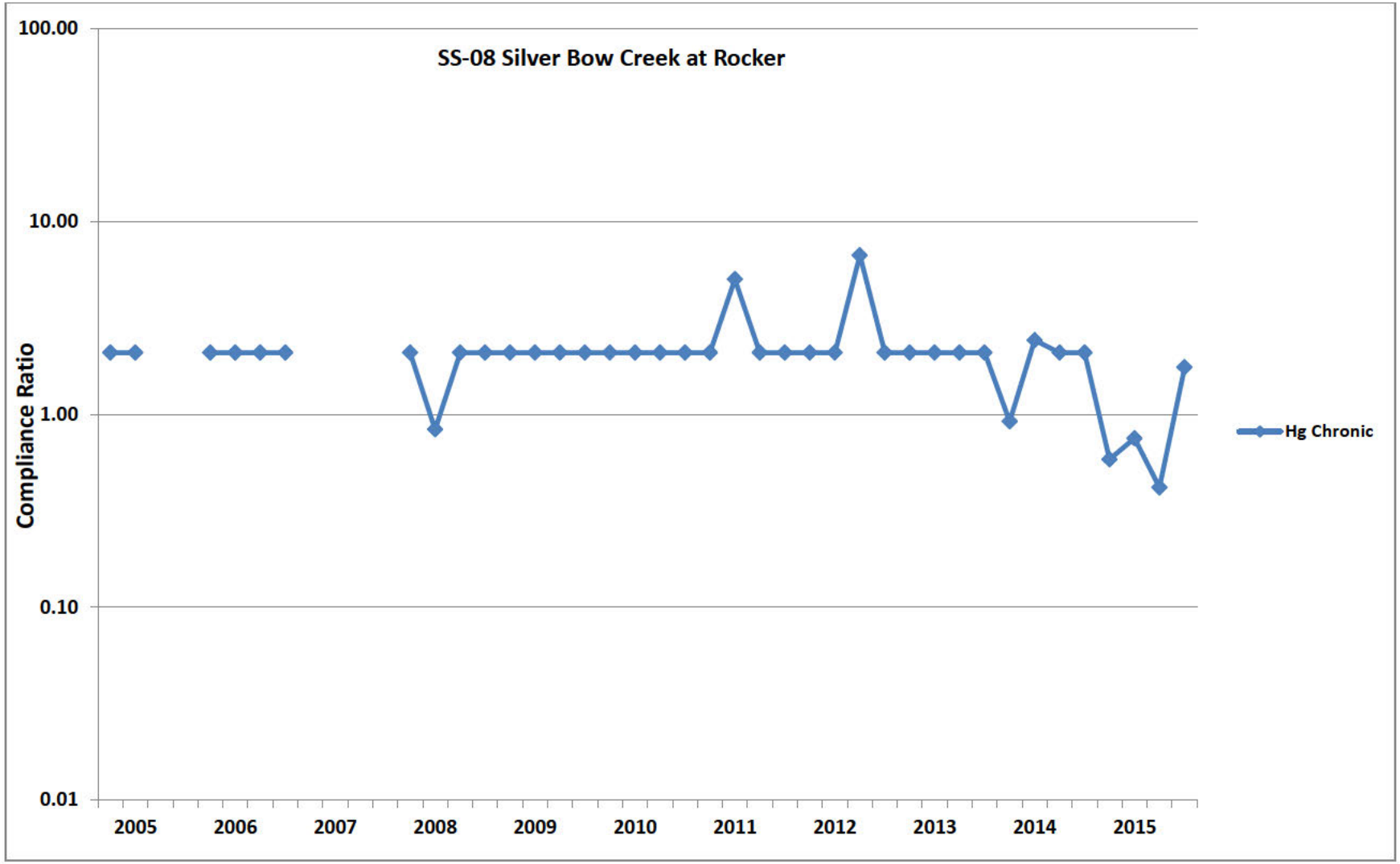

Figure 1-72. Total recoverable mercury compliance ratios for samples from Silver Bow Creek at Rocker, 2002–2015. Compliance ratios computed from quarterly measurements. Missing bars indicate values below the analytical reporting limit.

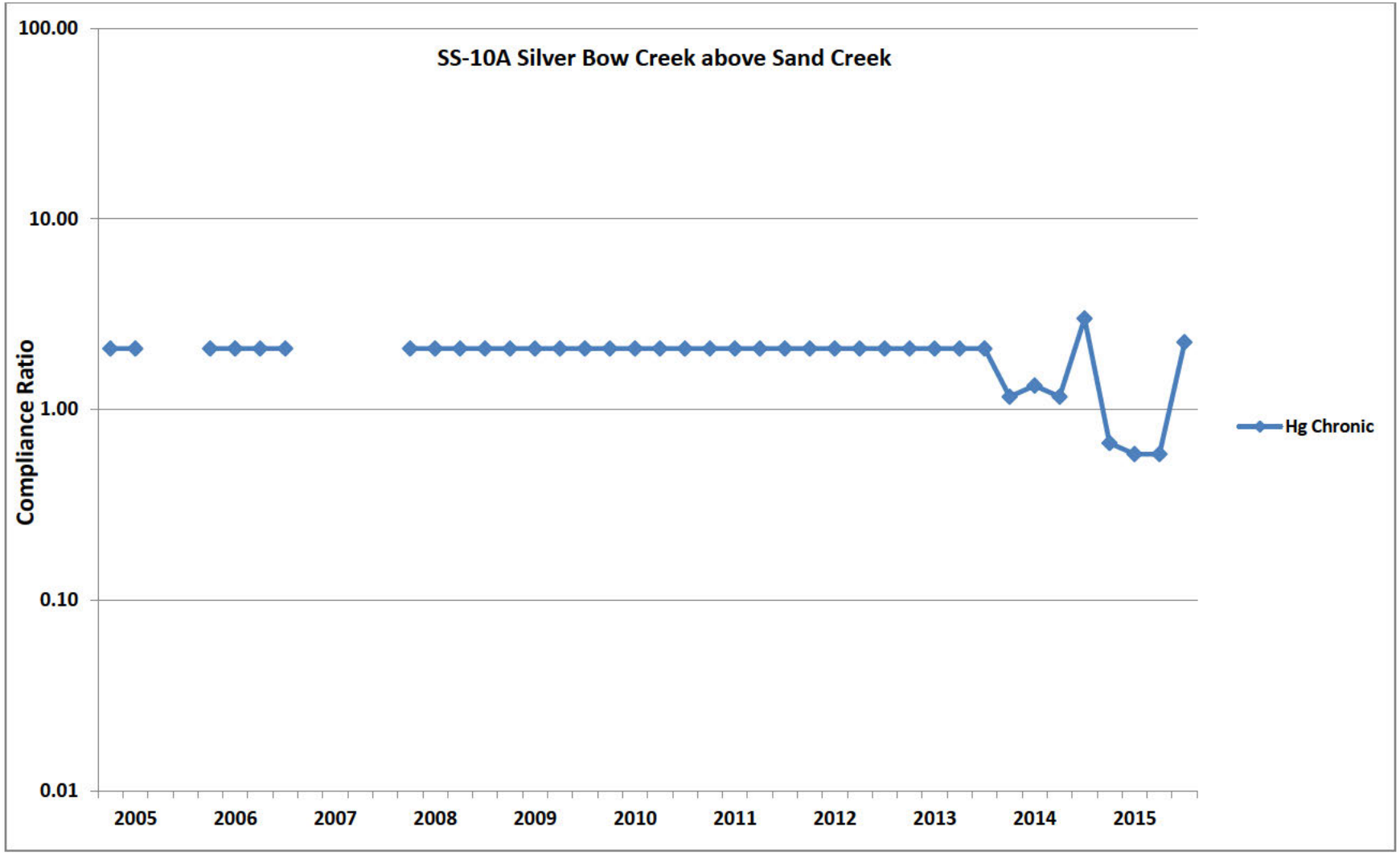

Figure 1-73. Total recoverable mercury compliance ratios for samples from Silver Bow Creek above Sand Creek, 2004–2015. Compliance ratios computed from quarterly measurements. Missing bars indicate values below the analytical reporting limit.

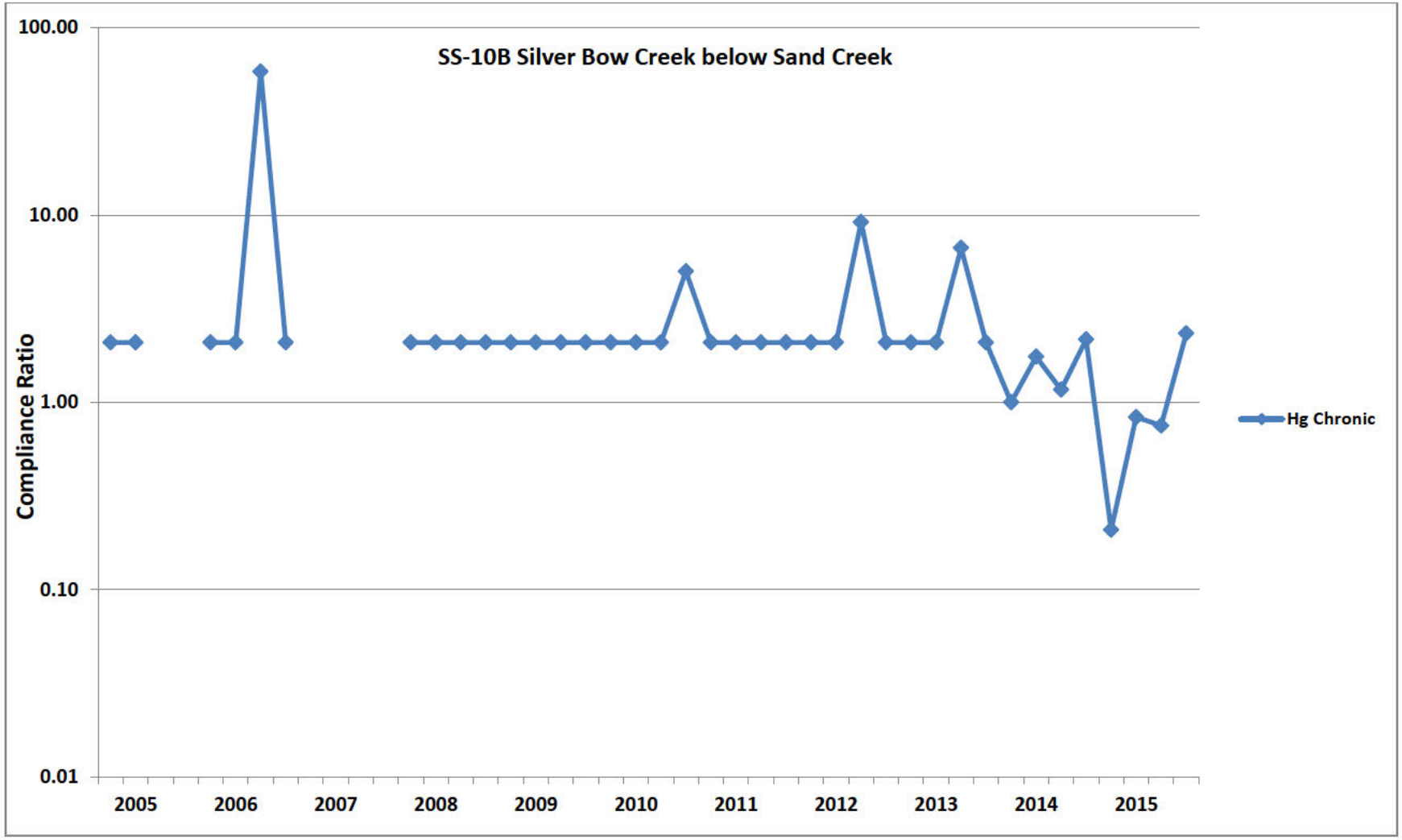

Figure 1-74. Total recoverable mercury compliance ratios for samples from Silver Bow Creek below Sand Creek, 2004–2015. Compliance ratios computed from quarterly measurements. Missing bars indicate values below the analytical reporting limit.

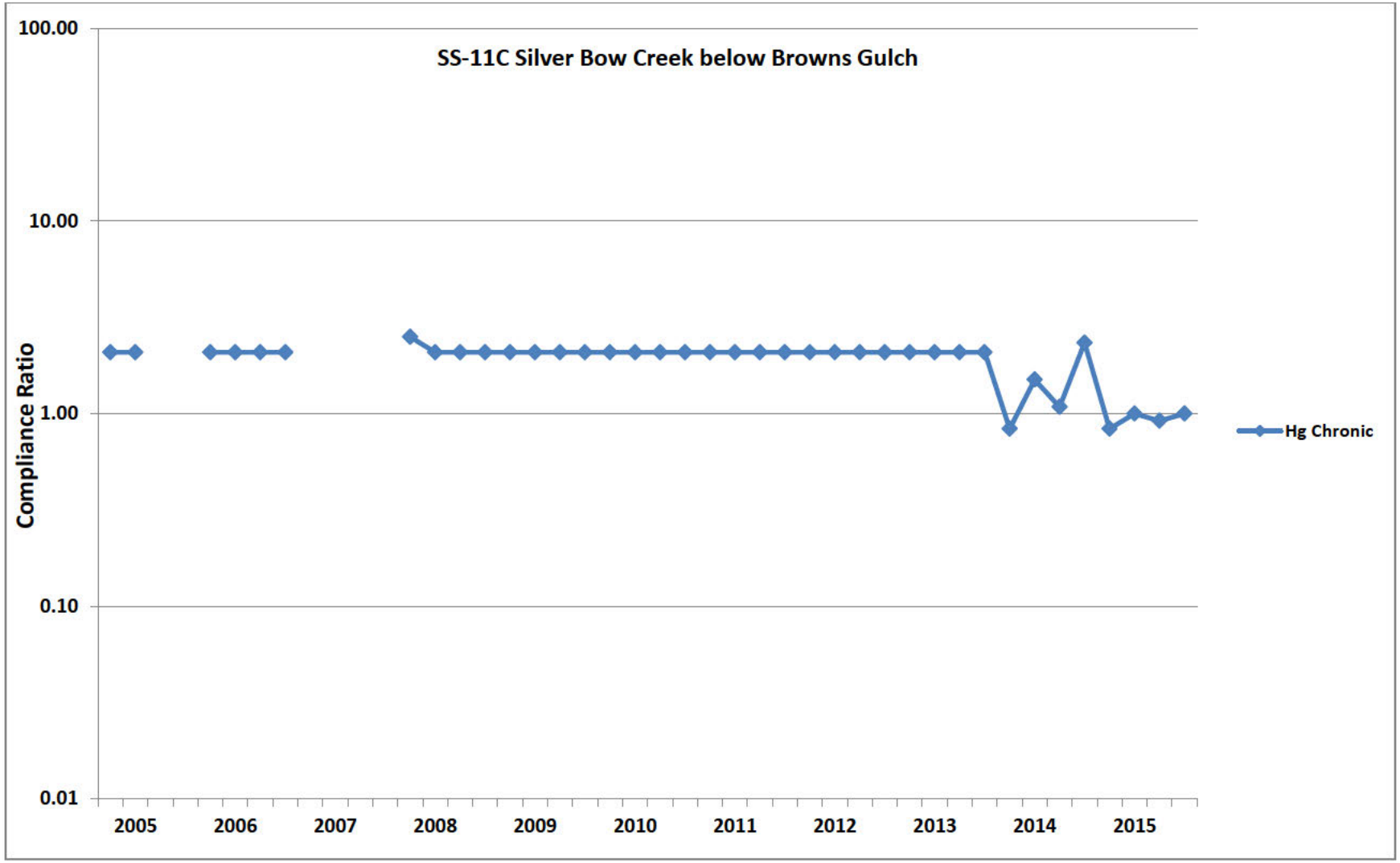

Figure 1-75. Total recoverable mercury compliance ratios for samples from Silver Bow Creek below Browns Gulch, 2004–2015. Compliance ratios computed from quarterly measurements. Missing bars indicate values below the analytical reporting limit.

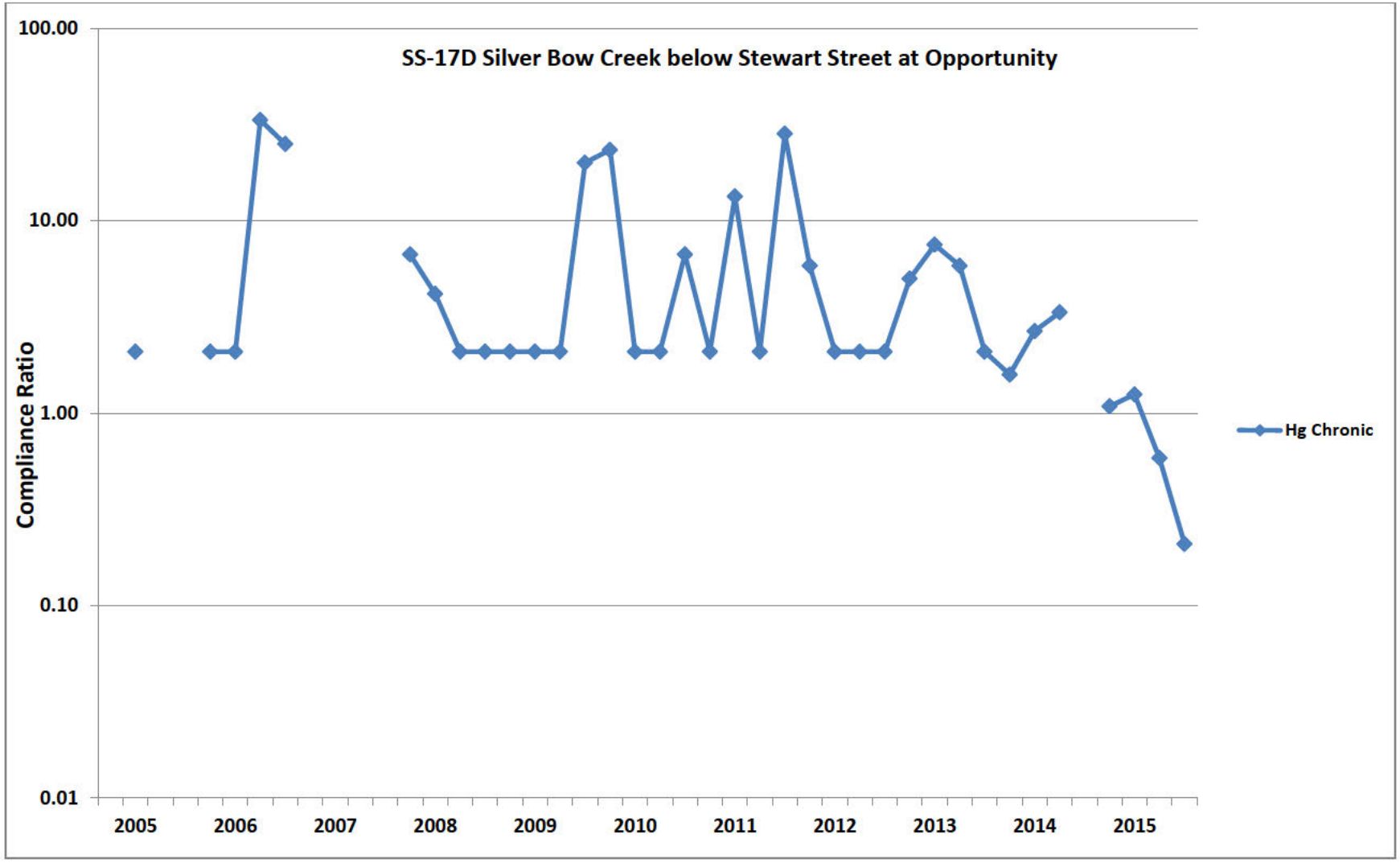

Figure 1-76. Total recoverable mercury compliance ratios for samples from Silver Bow Creek below Stewart Street at Opportunity, 2003–2015. Compliance ratios computed from quarterly measurements. Missing bars indicate values below the analytical reporting limit.

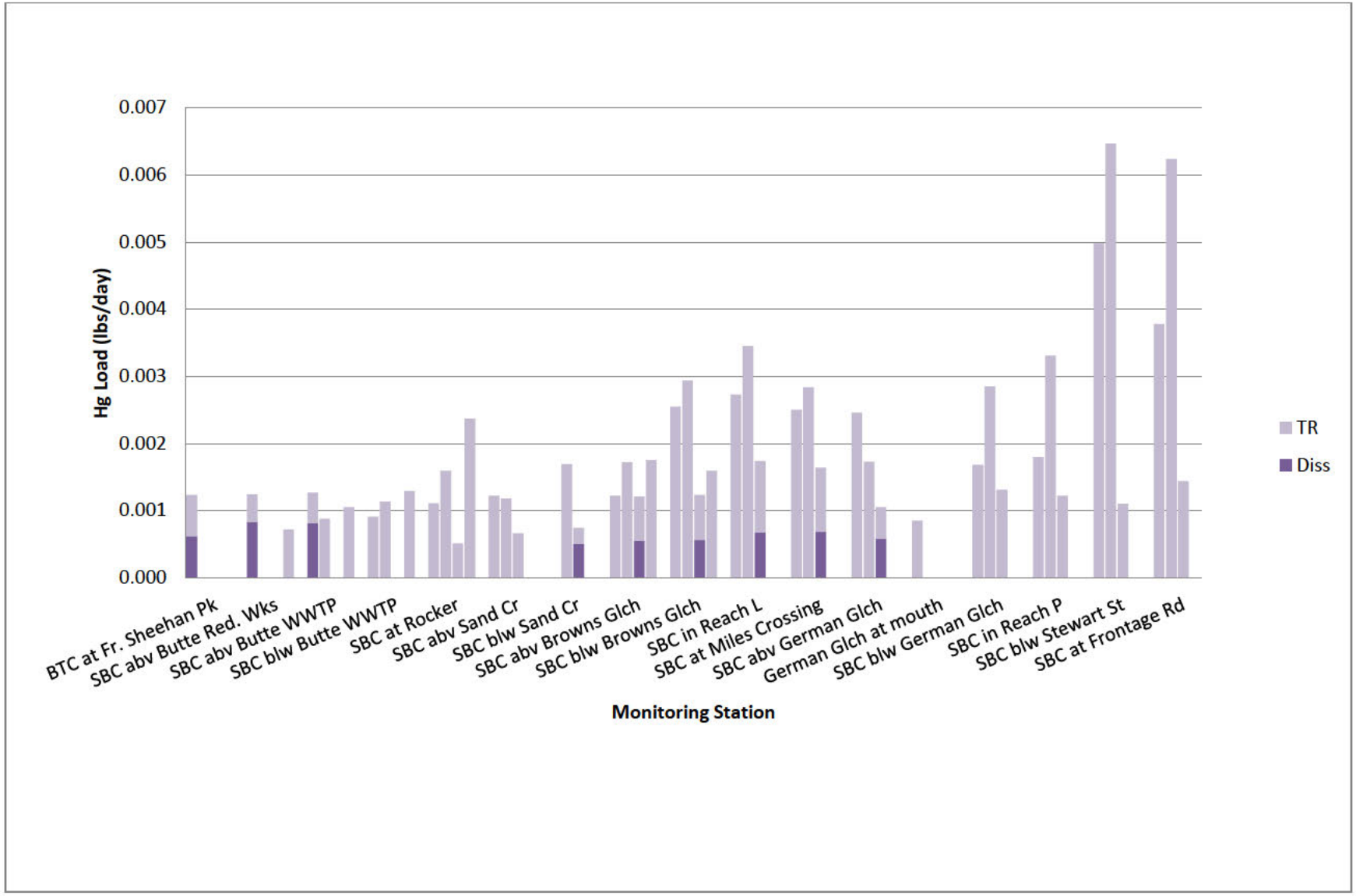

Figure 1-77. Total recoverable (TR) and dissolved (Diss) mercury loads at Streamside Tailings Operable Unit monitoring stations, 2015. No bars indicate no measureable load or missing streamflow data.

1.4.5.6 Zinc

Total recoverable zinc concentrations in the SSTOU in 2015 ranged from <0.008-0.158 mg/L [Table 1-18] and dissolved concentrations ranged from <0.008-0.137 mg/L. Zinc concentrations generally increased at each downstream monitoring station from Blacktail Creek at Father Sheehan Park to Silver Bow Creek above Browns Gulch [Figure 1-78]. In Q1, Q2, and Q3, zinc concentrations declined sharply downstream from Silver Bow Creek below Browns Gulch and remained relatively low throughout the remainder of the SSTOU to Silver Bow Creek below Stewart Street at Opportunity where concentrations increased again [Figure 1-78]. In Q4, zinc concentrations remained elevated at all sites downstream from Silver Bow Creek above Browns Gulch [Figure 1-78].

All samples from German Gulch, and 2 of 4 samples from Blacktail Creek at Father Sheehan Park, had zinc concentrations below the analytical reporting limit [Table 1-18]. The highest dissolved zinc concentrations were observed in Silver Bow Creek at Miles Crossing in Q4 [Table 1-18; Figure 1-78]. Zinc concentrations at all sites (except possibly German Gulch) were highest in Q4 [Figure 1-78].

Dissolved zinc concentrations were typically 70-90% of the total recoverable sample fraction in the 2015 SSTOU samples [Figure 1-78]. However, at some sites (Blacktail Creek at Father Sheehan Park, Silver Bow Creek above the WWTP, Silver Bow Creek in Reach L, Silver Bow Creek at Miles Crossing, and Silver Bow Creek above and below German Gulch) the dissolved sample fraction generally was generally <50% of the total recoverable concentration in all non-Q4 samples [Figure 1-78].

Since 2007, median annual total recoverable zinc concentrations have remained steady (with some minor annual variation) in Silver Bow Creek below the Butte WWTP, at Rocker, above and below Sand Creek, and below Browns Gulch [Figure 1-79]. However, median annual total recoverable zinc concentrations have decreased at Silver Bow Creek below Stewart Street at Opportunity since 2010 [Figure 1-79]. As of 2015, median zinc concentrations at Opportunity were similar to concentrations below the Butte WWTP, at Rocker, above and below Sand Creek, and below Browns Gulch [Figure 1-79].

No exceedances of the zinc chronic ALS [MDHES, 1994] occurred in the SSTOU in 2015 [Table 1-18].

Zinc compliance ratios appear to have declined, or remained steady, since 2005 at all stations where compliance ratios have been evaluated [Figure 1-80 through Figure 1-85]. With the exception of Silver Bow Creek below Stewart Street at Opportunity, all sites examined have had compliance ratios <1 since 2007 or earlier [Figure 1-80 through Figure 1-85]. At Silver Bow Creek below Stewart Street at Opportunity, all samples since 2013 have had compliance ratios <1 [Figure 1-85].

Zinc loads generally increased at each downstream site between Blacktail Creek at Father Sheehan Park and Silver Bow Creek below Browns Gulch [Figure 1-86]. Zinc loads were generally steady or decreased at each downstream site between Silver Bow Creek below Browns Gulch and Silver Bow Creek below German Gulch [Figure 1-86]. Downstream from Silver Bow Creek below German Gulch, zinc loads increased to Stewart Street at Opportunity and

remained steady downstream at Frontage Road [Figure 1-86]. Zinc loads were greatest in Q1 at several sites including: Silver Bow Creek above and below German Gulch, in Reach P, below Stewart Street at Opportunity, and at Frontage Road [Figure 1-86]. This trend contrasts with other COCs which typically have the highest loads in Q2.

Table 1-18. Total recoverable zinc concentrations (mg/L) at Streamside Tailings Operable Unit monitoring stations, 2015.

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	0.009	ND	ND	0.011
SS-05A	Silver Bow Creek above Butte Reduction Works	0.017	0.021	0.019	0.044
SS-06G	Silver Bow Creek above WWTP	0.023	0.024	0.020	0.055
SS-07	Silver Bow Creek below WWTP	0.034	0.034	0.036	0.064
SS-08	Silver Bow Creek at Rocker	0.060	0.063	0.042	0.104
SS-10A	Silver Bow Creek above Sand Creek	0.097	0.060	0.049	0.141
SS-10B	Silver Bow Creek below Sand Creek	0.080	0.063	0.054	0.141
SS-11C	Silver Bow Creek above Browns Gulch	0.131	0.122	0.079	0.141
SS-11D	Silver Bow Creek below Browns Gulch	0.102	0.121	0.083	0.136
SS-13	Silver Bow Creek in Reach L	0.070	0.079	0.064	0.154
SS-14	Silver Bow Creek at Miles Crossing	0.062	0.074	0.067	0.158
SS-15A	Silver Bow Creek above German Gulch	0.083	0.076	0.039	0.143
SS-15G	German Gulch near confluence	ND	ND	ND	ND
SS-15B	Silver Bow Creek below German Gulch	0.064	0.039	0.029	0.117
SS-16	Silver Bow Creek in Reach P near Fairmont	0.080	0.046	0.033	0.128
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	0.105	0.067	0.052	0.138
SS-19	Silver Bow Creek at Frontage Road	0.109	0.074	0.056	0.139

ND Not detected at analytical reporting limit.

Exceeds the chronic aquatic life standard [MDHES, 1994].

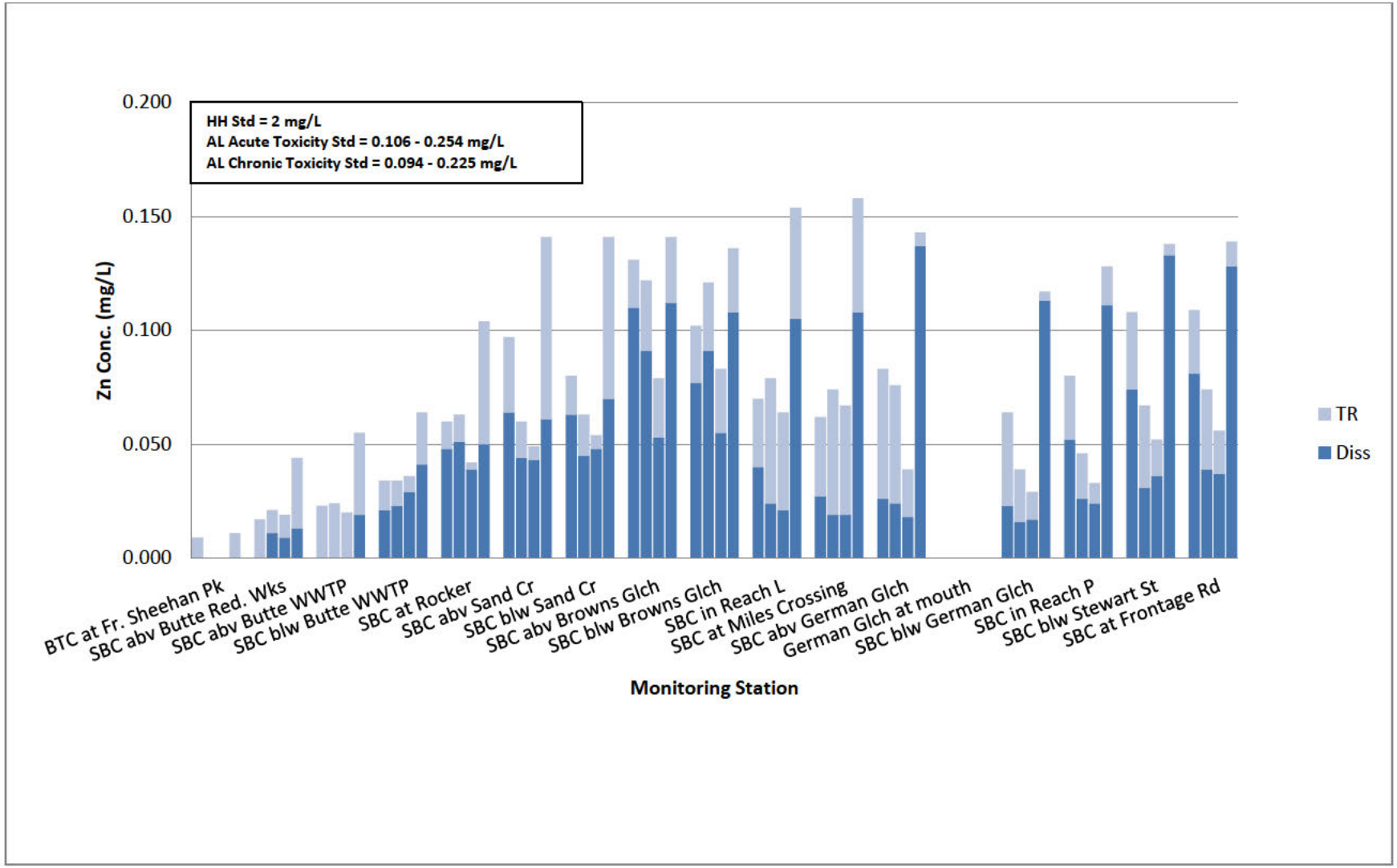

Figure 1-78. Total recoverable (TR) and dissolved (Diss) zinc concentrations at Streamside Tailings Operable Unit monitoring stations, 2015. Human health (HH Std) and aquatic life toxicity (AL Chronic/Acute Toxicity Std) standards for total recoverable zinc are shown for reference. Missing bars indicate concentrations below the analytical reporting limit.

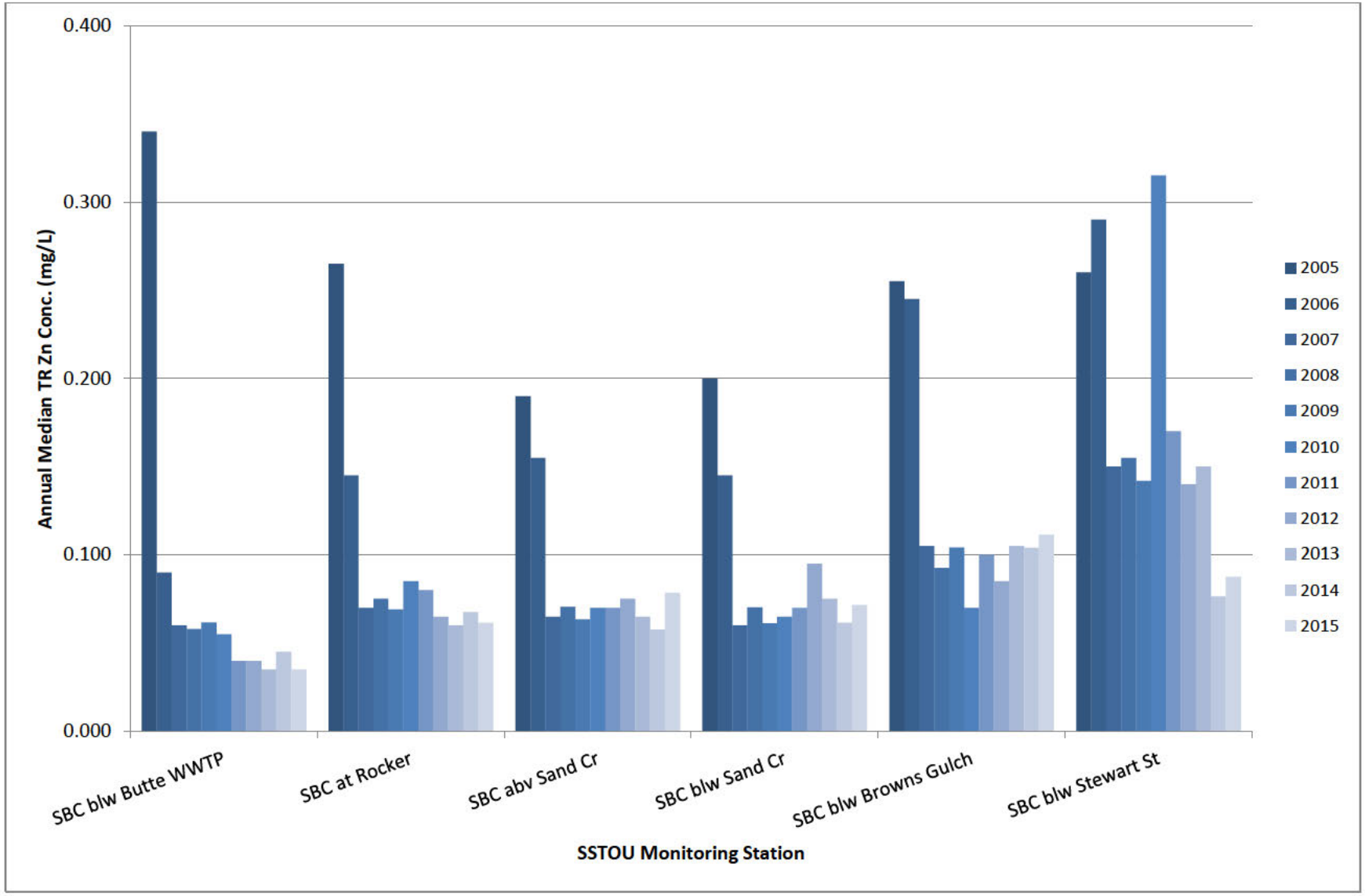

Figure 1-79. Annual median total recoverable zinc concentrations at selected Streamside Tailings Operable Unit monitoring stations, 2005–2015.

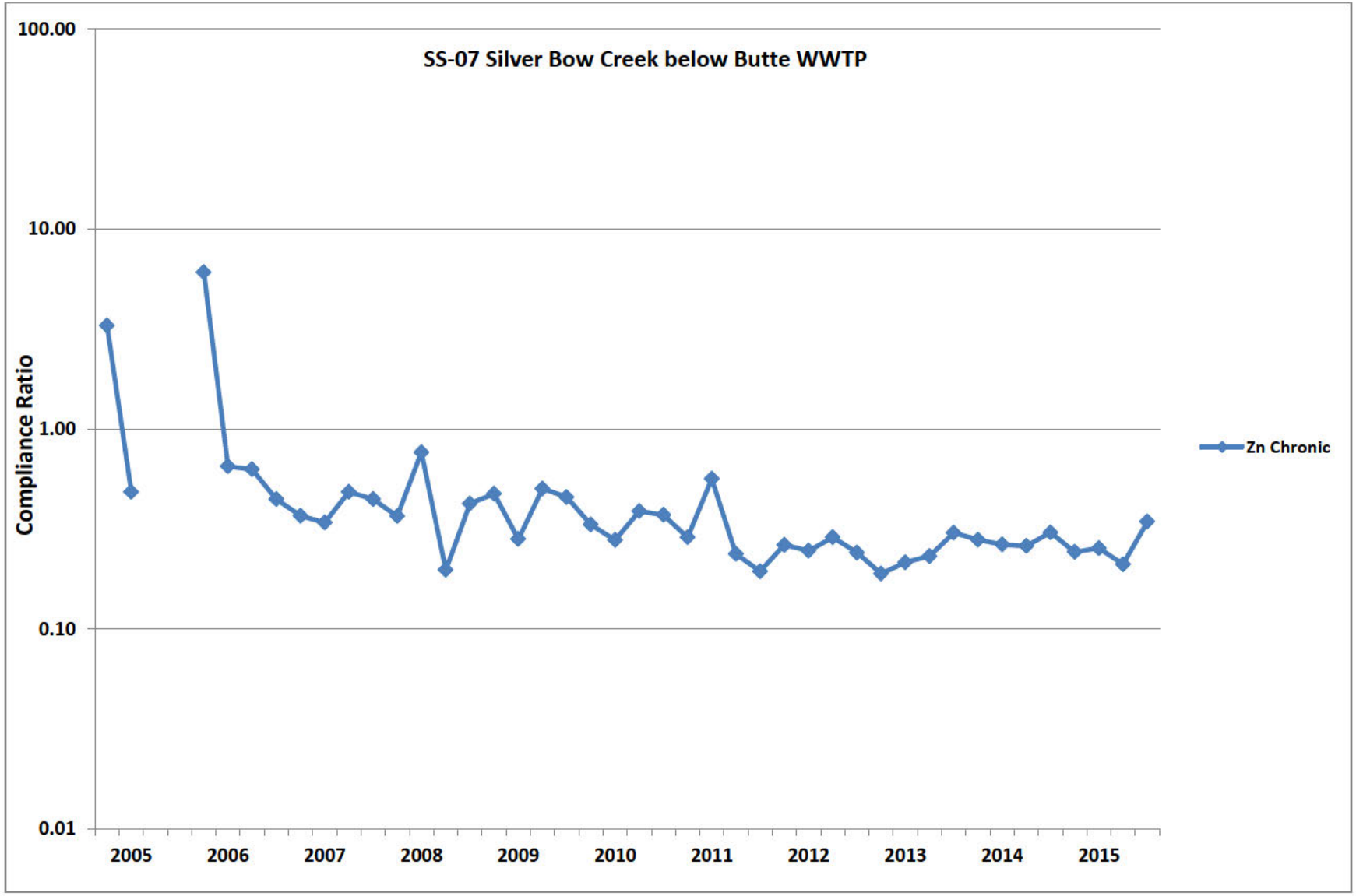

Figure 1-80. Total recoverable (TR) zinc compliance ratios for Silver Bow Creek below the Butte wastewater treatment plant discharge, 2005–2015. Compliance ratios computed from quarterly measurements.

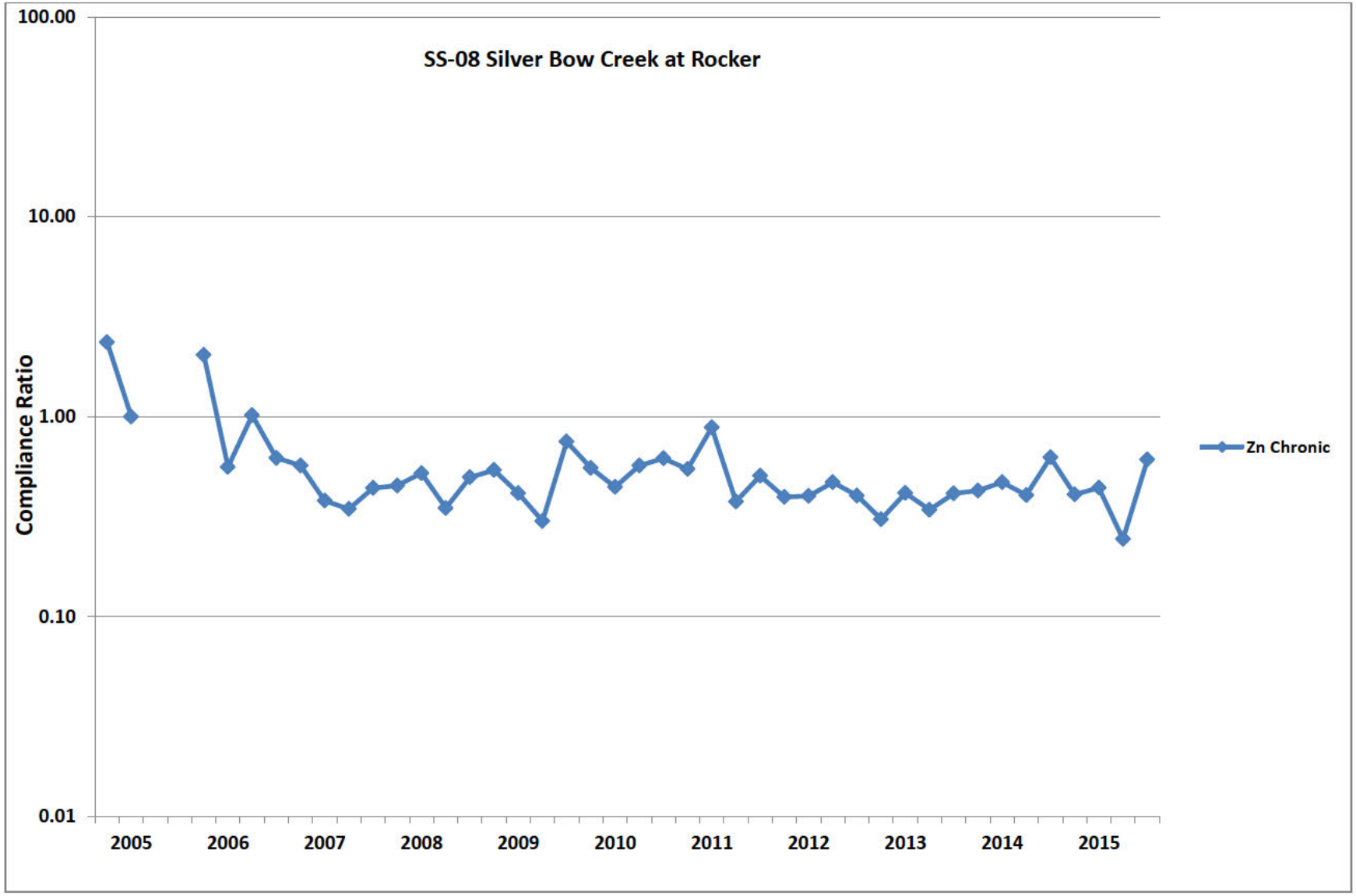

Figure 1-81. Total recoverable (TR) zinc compliance ratios for Silver Bow Creek at Rocker, 2005–2015. Compliance ratios computed from quarterly measurements.

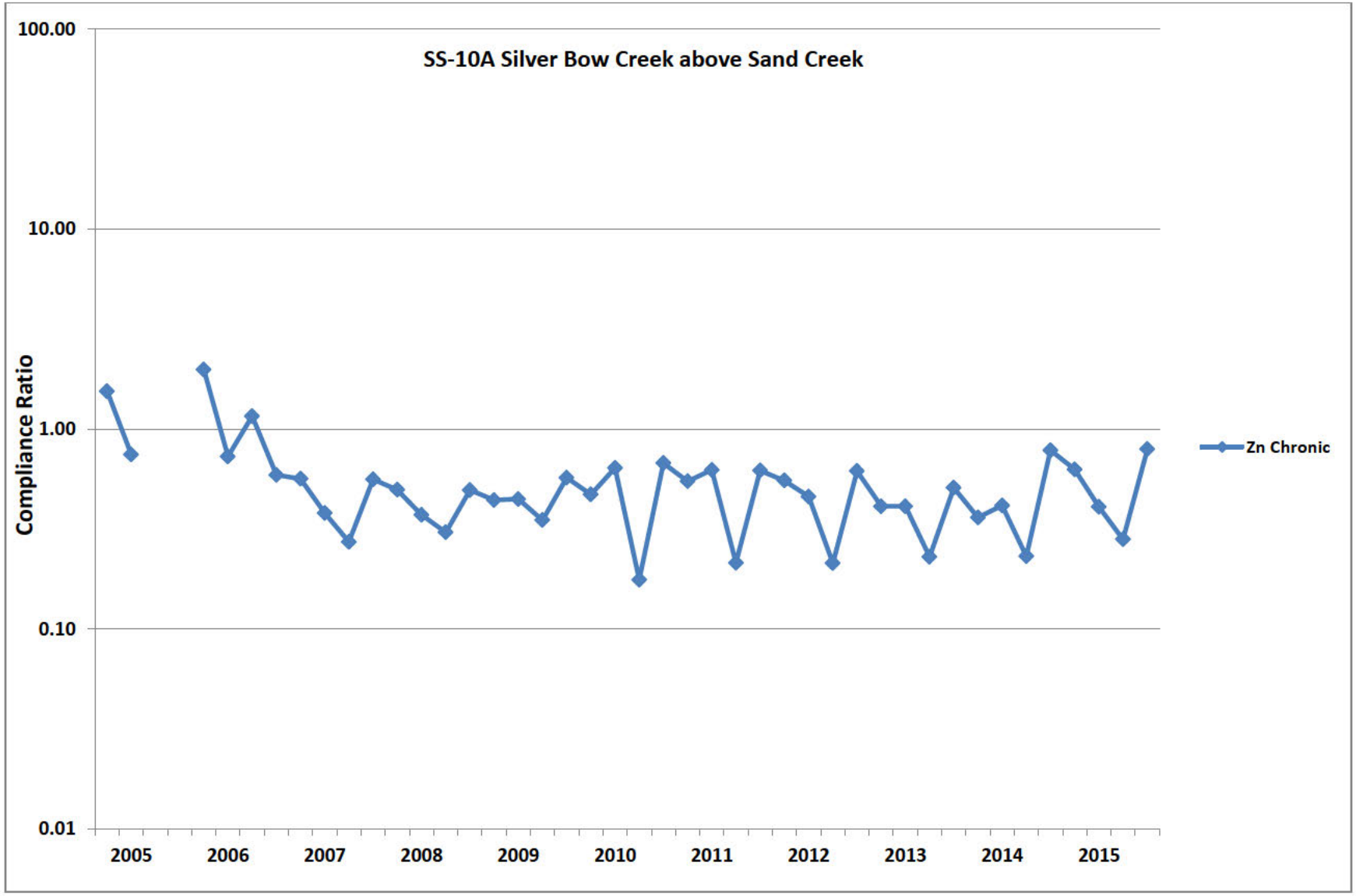

Figure 1-82. Total recoverable (TR) zinc compliance ratios for Silver Bow Creek above Sand Creek, 2005–2015. Compliance ratios computed from quarterly measurements.

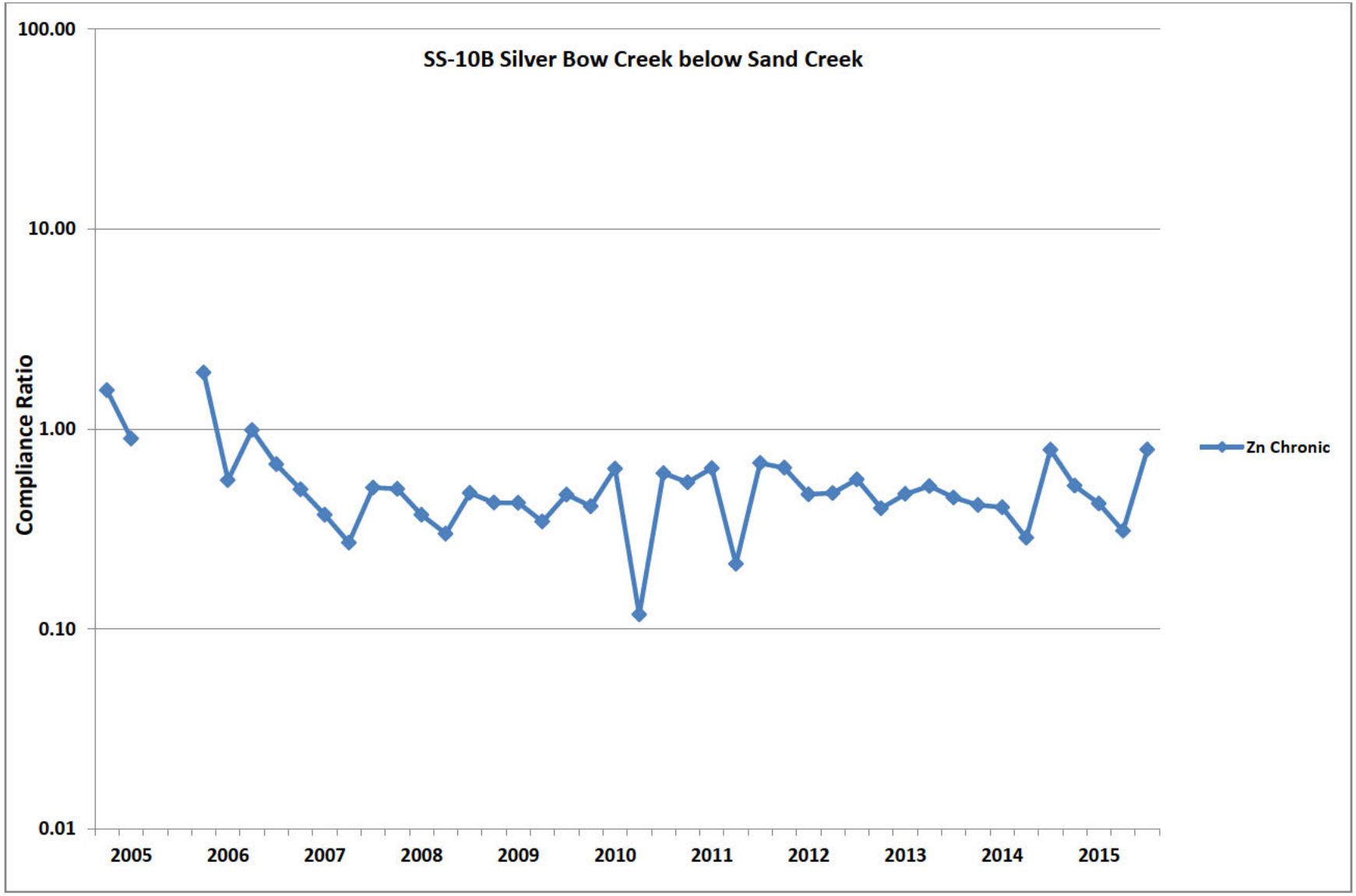

Figure 1-83. Total recoverable (TR) zinc compliance ratios for Silver Bow Creek below Sand Creek, 2005–2015. Compliance ratios computed from quarterly measurements.

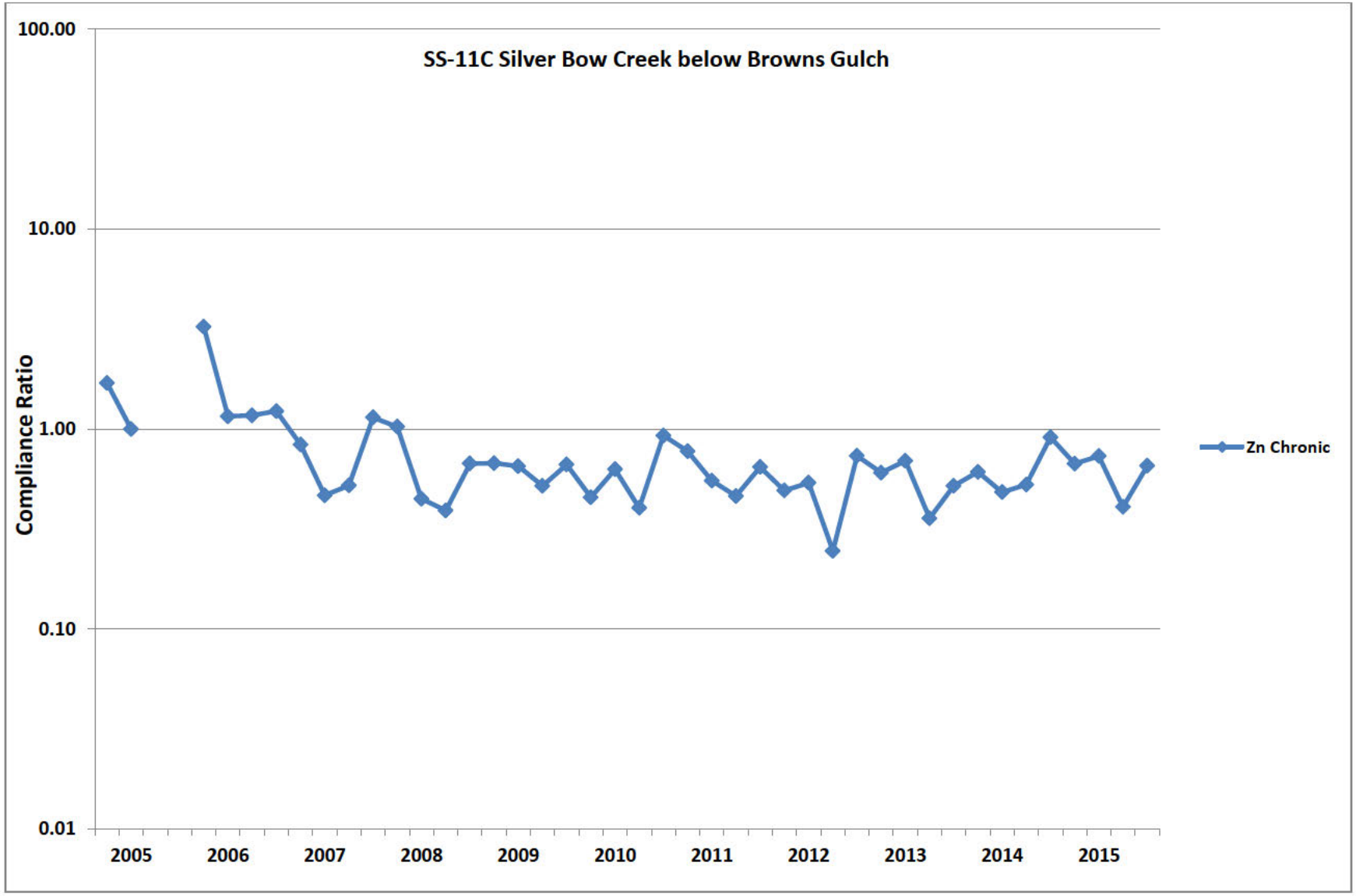

Figure 1-84. Total recoverable (TR) zinc compliance ratios for Silver Bow Creek below Browns Gulch, 2005–2015. Compliance ratios computed from quarterly measurements.

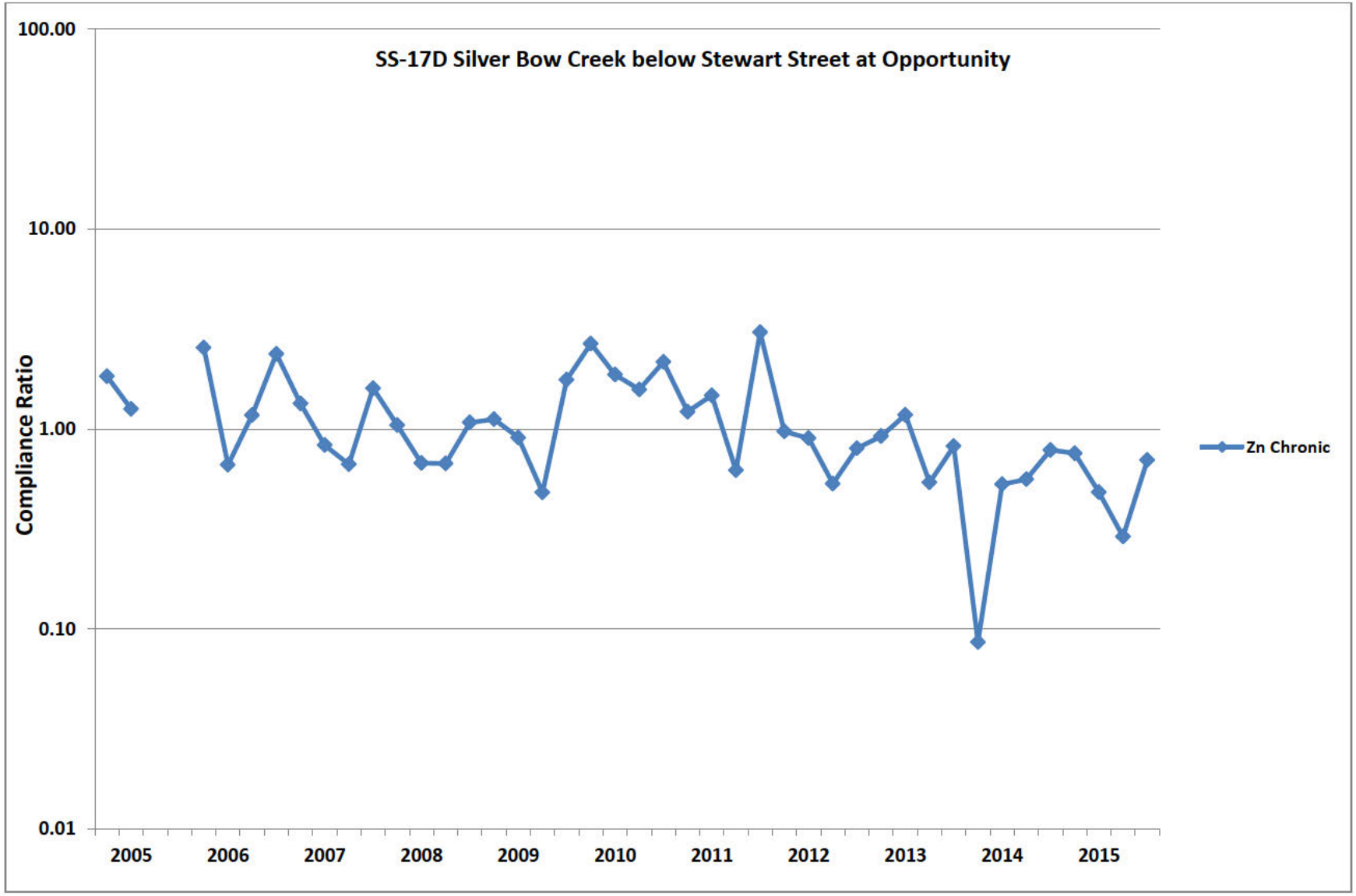

Figure 1-85. Total recoverable (TR) zinc compliance ratios for Silver Bow Creek below Stewart Street at Opportunity, 2005–2015. Compliance ratios computed from quarterly measurements.

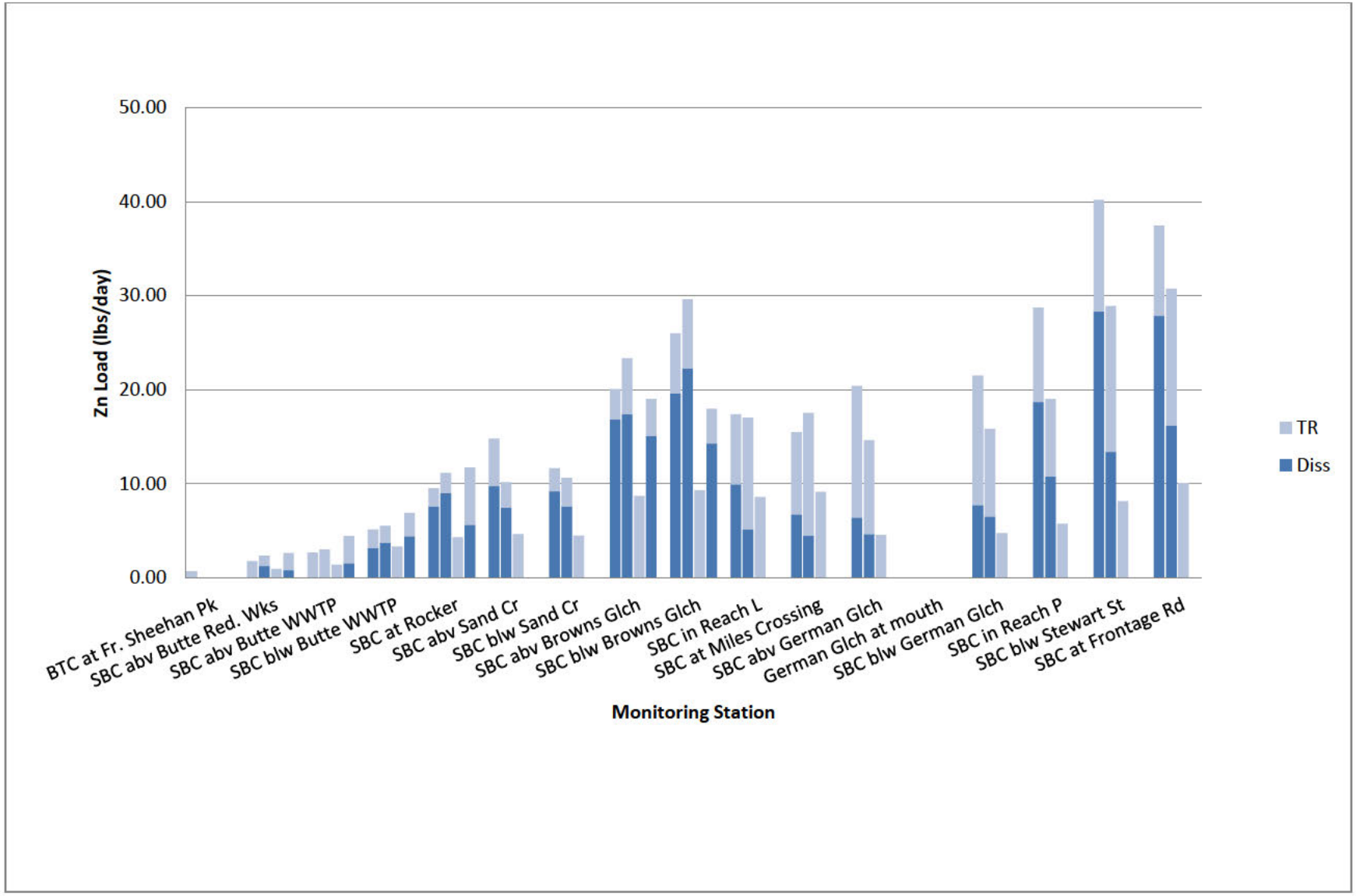

Figure 1-86. Total recoverable (TR) and dissolved (Diss) zinc loads at Streamside Tailings Operable Unit monitoring stations, 2015. No bars indicate no measureable loads or missing streamflow data.

1.4.6 Other Metals

1.4.6.1 Aluminum

Dissolved aluminum was detected at concentrations above the reporting limit (0.009 mg/L) in 3% of the samples (2 of 68) collected in 2015; concentrations ranged from <0.009-0.019 mg/L. No samples had dissolved aluminum concentrations exceeding the MDEQ [2012a] standards.

Total recoverable aluminum was detected at concentrations above the reporting limit in 100% of the samples (68 of 68) in 2015; concentrations ranged from 0.023-0.796 mg/L.

1.4.6.2 Antimony

Dissolved antimony was detected at concentrations above the reporting limit (0.0005 mg/L) in 1% of the samples (1 of 68) collected in 2015; concentrations ranged from <0.0005-0.0007 mg/L.

Total recoverable antimony was detected at concentrations above the reporting limit in 6% of the samples (4 of 68) in 2015; concentrations ranged from <0.0005-0.0009 mg/L. No samples had total recoverable antimony concentrations exceeding the MDEQ [2012a] standards.

1.4.6.3 Barium

Dissolved barium was detected at concentrations above the reporting limit (0.003 mg/L) in 100% of the samples (68 of 68) collected in 2015; concentrations ranged from 0.019-0.060 mg/L.

Total recoverable barium was detected at concentrations above the reporting limit in 100% of the samples (68 of 68) in 2015; concentrations ranged from 0.020-0.069 mg/L. No samples had total recoverable barium concentrations exceeding the MDEQ [2012a] standards.

1.4.6.4 Beryllium

Dissolved beryllium was detected at concentrations above the reporting limit (0.0008 mg/L) in 0% of the samples (0 of 68) collected in 2015.

Total recoverable beryllium was detected at concentrations above the reporting limit in 0% of the samples (0 of 68) in 2015. No samples had total recoverable beryllium concentrations exceeding the MDEQ [2012a] standards.

1.4.6.5 Boron

Dissolved boron was detected at concentrations above the reporting limit (0.1 mg/L) in 4% of the samples (3 of 68) collected in 2015; concentrations ranged from <0.1-0.1 mg/L.

Total recoverable boron was detected at concentrations above the reporting limit in 4% of the samples (3 of 68) in 2015; concentrations ranged from <0.1-0.2 mg/L.

1.4.6.6 Chromium

Dissolved chromium was detected at concentrations above the reporting limit (0.01 mg/L) in 0% of the samples (0 of 68) collected in 2015.

Total recoverable chromium was detected at concentrations above the reporting limit in 0% of the samples (0 of 68) in 2015. No samples had total recoverable chromium concentrations exceeding the MDEQ [2012a] standards.

1.4.6.7 Cobalt

Dissolved cobalt was detected at concentrations above the reporting limit (0.01 mg/L) in 0% of the samples (0 of 68) collected in 2015.

Total recoverable cobalt was detected at concentrations above the reporting limit in 0% of the samples (0 of 68) in 2015.

1.4.6.8 Iron

Dissolved iron was detected at concentrations above the reporting limit (0.02 mg/L) in 87% of the samples (59 of 68) collected in 2015; concentrations ranged from <0.02-0.31 mg/L.

Total recoverable iron was detected at concentrations above the reporting limit in 100% of the samples (68 of 68) in 2015; concentrations ranged from 0.04-1.32 mg/L. Five samples had total recoverable iron concentrations exceeding the MDEQ [2012a] standard (i.e., 1.0 mg/L).

Table 1-19. Total recoverable iron concentrations (mg/L) at Streamside Tailings Operable Unit monitoring stations, 2015.

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	0.88	0.80	0.32	0.65
SS-05A	Silver Bow Creek above Butte Reduction Works	0.53	0.84	0.36	1.25
SS-06G	Silver Bow Creek above WWTP	0.48	0.75	0.25	1.07
SS-07	Silver Bow Creek below WWTP	0.38	0.63	0.20	0.75
SS-08	Silver Bow Creek at Rocker	0.45	0.54	0.17	1.04
SS-10A	Silver Bow Creek above Sand Creek	0.43	0.48	0.14	1.29
SS-10B	Silver Bow Creek below Sand Creek	0.41	0.49	0.14	1.32
SS-11C	Silver Bow Creek above Browns Gulch	0.41	0.49	0.22	0.56
SS-11D	Silver Bow Creek below Browns Gulch	0.57	0.64	0.26	0.56
SS-13	Silver Bow Creek in Reach L	0.52	0.64	0.38	0.85
SS-14	Silver Bow Creek at Miles Crossing	0.50	0.58	0.43	0.80
SS-15A	Silver Bow Creek above German Gulch	0.57	0.42	0.18	0.19
SS-15G	German Gulch near confluence	0.24	0.24	0.04	0.08
SS-15B	Silver Bow Creek below German Gulch	0.45	0.30	0.13	0.15
SS-16	Silver Bow Creek in Reach P near Fairmont	0.36	0.26	0.12	0.37
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	0.42	0.43	0.19	0.16
SS-19	Silver Bow Creek at Frontage Road	0.45	0.49	0.19	0.23

Exceeds the chronic aquatic life standard [MDEQ, 2012a].

1.4.6.9 Manganese

Dissolved manganese was detected at concentrations above the reporting limit (0.001 mg/L) in 100% of the samples (68 of 68) collected in 2015; concentrations ranged from 0.002-0.330 mg/L.

Total recoverable manganese was detected at concentrations above the reporting limit in 100% of the samples (68 of 68) in 2015; concentrations ranged from 0.005-0.395 mg/L.

1.4.6.10 Molybdenum

Dissolved molybdenum was detected at concentrations above the reporting limit (0.005 mg/L) in 49% of the samples (33 of 68) collected in 2015; concentrations ranged from <0.005-0.007 mg/L.

Total recoverable molybdenum was detected at concentrations above the reporting limit in 56% of the samples (38 of 68) in 2015; concentrations ranged from <0.005-0.007 mg/L.

1.4.6.11 Nickel

Dissolved nickel was detected at concentrations above the reporting limit (0.002 mg/L) in 0% of the samples (0 of 68) collected in 2015.

Total recoverable nickel was detected at concentrations above the reporting limit in 3% of the samples (2 of 68) in 2015; concentrations ranged from <0.002-0.005 mg/L. No samples had total recoverable nickel concentrations exceeding the MDEQ [2012a] standards.

1.4.6.12 Selenium

Dissolved selenium was detected at concentrations above the reporting limit (0.001 mg/L) in 0% of the samples (0 of 68) collected in 2015.

Total recoverable selenium was detected at concentrations above the reporting limit in 0% of the samples (0 of 68) in 2015. No samples had total recoverable selenium concentrations exceeding the MDEQ [2012a] standards.

1.4.6.13 Silver

Dissolved silver was detected at concentrations above the reporting limit (0.0002 mg/L) in 0% of the samples (0 of 68) collected in 2015.

Total recoverable silver was detected at concentrations above the reporting limit in 6% of the samples (4 of 68) in 2015; concentrations ranged from <0.0002-0.0004 mg/L. No samples had total recoverable silver concentrations exceeding the MDEQ [2012a] standards.

1.4.6.14 Uranium

Dissolved uranium was detected at concentrations above the reporting limit (0.0002 mg/L) in 100% of the samples (68 of 68) collected in 2015; concentrations ranged from 0.0004-0.0061 mg/L.

Total recoverable uranium was detected at concentrations above the reporting limit in 100% of the samples (68 of 68) in 2015; concentrations ranged from 0.0005-0.0067 mg/L. No samples had total recoverable uranium concentrations exceeding the MDEQ [2012a] standards.

1.4.6.15 Vanadium

Dissolved vanadium was detected at concentrations above the reporting limit (0.1 mg/L) in 0% of the samples (0 of 68) collected in 2015.

Total recoverable vanadium was detected at concentrations above the reporting limit in 0% of the samples (0 of 68) in 2015.

1.4.7 Data Validation

Data quality objectives (DQOs) were evaluated for accuracy and precision. These DQOs were largely met in 2015, with a few exceptions. Analyte concentrations were measured in field

blanks to evaluate sampling accuracy and the extent to which the field techniques may have contaminated the samples. Fifty eight analytes were analyzed in eight separate field blank samples in 2015. Of the 464 analyte concentrations in those field blanks, 1.2% (6 of 464) of the analytes had concentrations equal to or greater than the respective analytical reporting limit. Manganese was detected in 12.5% (1 of 8) of the total recoverable field blank samples with a concentration of 0.002 mg/L (RL = 0.001 mg/L). Volatile suspended sediment was detected in 12.5% (1 of 8) of the field blank samples with a concentration of 1 mg/L (RL = 1 mg/L). Dissolved zinc was detected in 50% (4 of 8) of the field blanks samples; detectable dissolved zinc concentrations in field blanks ranged from 0.009-0.015 mg/L.

Paired field sample and field duplicate concentrations were compared to evaluate sampling precision. In each pair, fifty eight analytes were analyzed in eight separate field sample and field duplicate pairs in 2015. In total, there were 464 sample and duplicate pairs. Of those pairs, 51% (236 of 464) had concentrations which were ≥500% of the analytical reporting limit (RL) and relative percent difference (RPD) comparisons were made between the field sample and duplicate sample for those 236 analyte pairs. None of the 228 pairs (0%) had RPDs greater than the DQO specified for sampling precision (25%).

1.5 DISCUSSION

The SSTOU remedy is intended to remove threats to human health and the environment posed by mining related contaminants within the floodplain of Silver Bow Creek. As of December 2015, major remedial measures have been completed throughout the SSTOU. In 2015, major remedial activities were ongoing only in portions of Subarea 3. This monitoring report represents a continuing assessment of post-remediation conditions present during the 2015 calendar year in the SSTOU and at sample sites immediately outside the SSTOU.

1.5.1 Streamflows

Concentrations of metals and other contaminants in Silver Bow Creek appear to be strongly influenced by streamflows. Concentrations of metals and some nutrients appeared to increase in relation to streamflow, particularly in relation to snowmelt runoff and rainfall. Influences of point source discharges, such as the Butte WWTP discharge, on instream water quality may decrease in the presence of elevated streamflows. Thus, streamflows during and immediately prior to monitoring events are an important factor influencing water quality conditions.

The 2015 monitoring year was characterized by variable streamflows in Silver Bow Creek and its tributaries. Streamflows ranged from average to above average depending on the time of year and the site. Streamflows were above normal from January through March at the three USGS gauging stations in the SSTOU presumably due to an early period of snowmelt runoff occurring in early- to mid-February and again in mid-March. Streamflows were approximately normal in the April to early-May period. The mid-May to early-June period had above average streamflows. The peak annual streamflow occurred from May 17-18, 2015. Streamflows were then closer to the normal range from mid-June to November, with some intermittent, brief

pulses in streamflow following rain events in mid- to late-summer. Streamflows were generally above normal in November and December 2015.

First quarter surface water quality monitoring was conducted during above normal streamflow conditions following the early spring snowmelt runoff event in mid-March. The second quarter monitoring event occurred three days before the annual peak of the spring snowmelt runoff period. Streamflows were near normal and declining during the third quarter monitoring event and slightly above normal during the fourth quarter event.

It is not known if some variation in streamflows observed between sites during given sample periods were due to losing or gaining stream segments (e.g., groundwater exchange), irrigation diversions, fluctuating streamflows induced by the Butte WWTP discharge in relation to sampling times, error in streamflow gauging precision, or a combination of these factors.

1.5.2 Field Parameters

1.5.2.1 Water Temperature

Differences in water temperature between the SSTOU monitoring sites were likely influenced by the monitoring sequence and the time of day that measurements were taken at each site. Water temperatures in the SSTOU in 2015 were consistently below 16 C. The highest water temperatures during the four quarterly monitoring events were observed most frequently in Q3. The Butte wastewater treatment plant (WWTP) and German Gulch inflows appeared to influence water temperatures in the Silver Bow Creek mainstem on a seasonal basis. During the Q4 monitoring event, water temperatures in Silver Bow Creek were nearly 4 C warmer downstream from the WWTP outfall compared to temperature immediately upstream from the outfall. Water temperatures in Silver Bow Creek downstream from the German Gulch confluence were 1-3 C cooler compared to temperatures immediately upstream from the confluence in Q1, Q2, and Q3.

Although the temperatures observed during the 2015 sampling events do not indicate stressful conditions for salmonids and other cold-water organisms, hourly temperature monitoring in Silver Bow Creek by Montana Fish Wildlife and Parks [Lindstrom, 2015] indicate that water temperatures in Silver Bow Creek during the summer commonly exceed 20 C and occasionally exceed 25 C. Therefore, it is important to recognize the limitations of the data included in this report in describing spatial temperature trends.

1.5.2.2 Acidity

All pH measurements in the SSTOU in 2015 were within the 6.5–9.5 range which is the goal for I-classification streams. Variability in pH between sites during the same sample period were likely the result of diel biogeochemical cycles [Nimmick et al., 2002] and therefore it is difficult from the data contained in this report to discern spatial pH trends.

1.5.2.3 Conductivity

Elevated conductivity may indicate excessive concentrations of dissolved solids which may limit some beneficial uses of water (e.g., irrigation or drinking water). Low conductivity is typically related to watershed geology and may indicate low productivity of associated biological systems. Conductivity tends to be inversely related to streamflow due to dilution.

The highest conductivities at most of the SSTOU monitoring stations were observed during the Q4 monitoring event when streamflows were at a winter base streamflow level. The lowest conductivities at most stations were observed in Q2, during snowmelt runoff conditions. Conductivity tended to increase gradually from the upper-most monitoring station, Blacktail Creek at Father Sheehan Park, downstream to below the Butte WWTP, and conductivity then remained more or less static to below Sand Creek. There was another step increase in conductivity from below Sand Creek to above Browns Gulch, and conductivity was generally similar from below Browns Gulch to above German Gulch. Below the German Gulch confluence, a decrease in conductivity occurred at the four downstream Silver Bow Creek monitoring stations. Conductivity values measured in 2015 were within the range of values recorded in 2013-2014.

1.5.2.4 Dissolved Oxygen

All dissolved oxygen concentration measurements were above the 1-day minimum standard for an I-classification stream without juvenile salmonids (3 mg/L; MDEQ [2012a]). However, these results reflect a limitation in this sampling design because no sampling occurs during the night. Several recent studies have demonstrated that Silver Bow Creek is severely hypoxic (dissolved oxygen <2 mg/L) during summer nights [Plumb, 2009; Gammons et al., 2011; Naughton, 2013]. The hypoxia is most likely caused by ammonia-rich effluent from the Butte WWTP [Gammons et al., 2011] and hypoxia is a primary limiting factor for the recovery of trout in Silver Bow Creek [Naughton, 2013].

1.5.2.5 Turbidity and Suspended Sediment

Total suspended sediment concentrations and turbidity both measure the concentration of solids suspended in the water and therefore, not surprisingly, there appeared to be a strong, positive correlation between those two parameters. However, measurement of total suspended sediment concentrations and turbidity differs because total suspended sediment concentrations are evaluated by laboratory analysis of the sediment weight whereas turbidity is measured in the field by the amount of light scattered by the suspended sediments in a water sample.

As in 2014, the highest turbidity and total suspended sediment concentrations observed at many SSTOU monitoring stations, particularly those in Subareas 1 and 2, occurred during Q4 of 2015. The source of this elevated Q4 turbidity is unknown but we suspect it may have resulted from the mobilization of sediments complexed with, or trapped in, decaying aquatic plant or algal material. Subareas 1 and 2 have extremely large crops of plant and algal material

during the summer, which is presumably related to the extreme levels of nutrient enrichment downstream from the Butte WWTP.

The elevated suspended sediment concentrations in Q4 are important because they appear to be strongly positively related to COC concentrations (particularly total recoverable concentrations for cadmium, copper, lead, mercury, and zinc). In 2015, we added volatile suspended sediment concentrations to the monitoring program at each site. Volatile suspended sediment concentrations measure the proportion of combustible (i.e., organic) material in the total suspended sediment sample. Although the analytical method for measurement of volatile suspended sediment concentrations may slightly overestimate the proportion of organic material [Spellman, 2014] in the sample, we believe it provides a suitable approximation. We hypothesized that increased suspended sediment concentrations in Q4 were caused by sloughing of organic material from anchor ice and channel scour and the proportion of volatile suspended sediments in the total suspended sediment sample would increase during Q4 in samples with the highest total suspended sediment concentrations. However, we did not find evidence to support that hypothesis. In Q4 2015, total suspended sediment concentrations were in fact much higher than in other quarters (particularly in Subarea 1 and 2) but the proportion of volatile sediments to total sediments did not change as the total suspended sediment concentrations increased. This evidence suggests that the mechanism of increased Q4 suspended sediment concentrations was not due to increased proportions of organic sediments. Rather, the increased total suspended sediment concentrations may have been because sloughing of organic material releases mineral sediments (some of which contain COCs) that are trapped by, rather than complexed with, the plant and algal material in the channel.

Alternate hypotheses for the increased suspended sediment concentrations during Q4 are that channel constriction due to ice formation along the stream channel margins caused displacement and ice scouring of the stream bed and banks. Ice cover along the channel margins and stream bed was extensive during Q4 of 2014 and 2015. Those conditions, in addition to the sloughing of algal material and associated sediments, likely contributed to the elevated suspended sediment and COC concentrations in Q4.

1.5.3 Common Ions

Common ions describe the basic water chemistry of the subject water bodies, and certain ions (e.g., sulfate) may be used as indicators for the presence of mine related contaminants. Calcium and magnesium ions contribute to water hardness, which helps to buffer the toxic effects of some heavy metals. Aquatic life toxicity standards for cadmium, copper, lead, zinc and other metals are determined on the basis of water hardness. Hardness mitigates metal toxicity by preventing aquatic organisms from absorbing metals. Carbonate and bicarbonate alkalinity contribute to the buffering system of surface waters to resist changes in pH. Levels of water hardness and alkalinity also influence the productivity of aquatic systems. Western freshwater fisheries typically have alkalinity values of 100–200 mg/L.

Water hardness in Silver Bow Creek during 2015 was typically hard to very hard, while water hardness in Blacktail Creek and German Gulch was consistently lower than in Silver Bow Creek. Hardness increased from Blacktail Creek at Father Sheehan Park to the Silver Bow

Creek station above Browns Gulch, stabilized downstream to above German Gulch, and then decreased from above to below German Gulch. All of the Silver Bow Creek monitoring stations were classified as either calcium bicarbonate or calcium bicarbonate-sulfate type waters, depending on the season and station, from the standpoint of anionic composition. There was little spatial variation between mainstem SSTOU stations in carbonate and bicarbonate alkalinity. Tributary stations Blacktail Creek and German Gulch had somewhat lower total and bicarbonate alkalinity than mainstem stations. Total and bicarbonate alkalinity increased from above to below the Butte WWTP discharge.

Sodium ion concentrations showed the same spatial pattern in each of years 2010-2015, with increases noted from the Blacktail Creek downstream to Browns Gulch area, and then stabilizing downstream to the German Gulch confluence. Chloride concentrations showed gradual increases from Blacktail Creek downstream to below the Butte WWTP outfall, and large increases from below Sand Creek to above Browns Gulch. Low sodium and chloride concentrations in German Gulch diluted concentrations in Silver Bow Creek below its confluence. The largest upstream to downstream increases in sodium and chloride concentration in Silver Bow Creek were noted in the reach from below Sand Creek to above Browns Gulch. Increases in chloride concentrations were also noted in Silver Bow Creek from above to below the Butte WWTP outfall.

Sulfate concentrations increased several fold in Silver Bow Creek from above the Butte Reduction Works to the station above the Butte WWTP, increased at a lower rate downstream to the above Browns Gulch station, and then stabilized in the segment of Silver Bow Creek extending downstream to the German Gulch confluence. Like the other common ions, sulfate concentrations fell markedly in Silver Bow Creek below German Gulch, presumably due to dilution.

Magnesium, chloride, and sodium showed anomalously high concentrations in the segment of Silver Bow Creek extending from above the Butte Reduction Works to below the Butte WWTP outfall during the Q4 monitoring event. The cause was believed to be storm water runoff or storm water discharges containing chemical de-icing agents. A winter ice storm was in progress during monitoring at these stations.

1.5.4 Nutrients

Concentrations of nutrients during 2015 were high throughout Silver Bow Creek and regularly exceeded the MDEQ summertime nutrient standards for the Middle Rockies Ecoregion [MDEQ, 2014]. Concentrations were particularly high at monitoring stations located downstream of the Butte WWTP discharge. Nutrient concentrations observed in 2015 were generally consistent with monitoring in prior years, with one exception. During the Q3 monitoring event, total nitrogen concentrations were even higher than in prior years at four consecutive Silver Bow Creek monitoring stations extending from below the Butte WWTP outfall to below Sand Creek. During Q3 2015, total nitrogen concentrations were several times higher than any other sample period since at least 2010. We speculate that ongoing work at the WWTP to upgrade treatment operations and ultimately reduce nutrient loading from the WWTP, may have been responsible to these abnormally high nitrogen concentrations, perhaps

due to an operational upset or bypass event at the facility. As in prior years, concentrations of total ammonia in Silver Bow Creek intermittently exceeded the chronic ALS for early life stage salmonids [MDEQ, 2012a] at two stations in Subarea 1 downstream from the Butte WWTP.

Nutrient loading estimates for Silver Bow Creek support the findings of others [Plumb, 2009; Gammons et al., 2011] that the Butte WWTP is the largest source of total nitrogen and total phosphorus downstream of the outfall. Spatial trends in nutrient loads demonstrate the enormous assimilative capacity of Silver Bow Creek during the summer. Between Silver Bow Creek below the WWTP and Silver Bow Creek above Browns Gulch (a distance of approximately 6 stream miles) in Q3, total nitrogen loads decreased from 3,017 pounds per day to 363 pounds per day. This reduction in nutrient load was probably primarily due to nutrient uptake by aquatic plants and algae. In addition, smaller scale nutrient sources were evident along Blacktail Creek and Silver Bow Creek both above and below the Butte WWTP. Large loads of total nitrogen were measured at four consecutive Silver Bow Creek sites extending from below Browns Gulch to above German Gulch in Q1, but not at upstream or downstream sites. It is not known whether these localized high loads derived from a pulse in loading from the Butte WWTP that happened to be encountered instream at these monitoring locations, or whether it resulted from nutrient inputs from Browns Gulch or other localized sources near the Browns Gulch confluence.

Total nitrogen, nitrate plus nitrite nitrogen, and total phosphorus concentrations at most monitoring stations showed considerable variability over the four 2015 monitoring events. This variability was presumably due to streamflow fluctuations, rates of biological uptake by aquatic plants, and conversion of nitrogen forms below the WWTP discharge. The highest nutrient concentrations were almost always measured during the lowest streamflow conditions in Q3.

1.5.5 Contaminants of Concern

The SSTOU remedy is intended to remove threats to human health and the environment posed by the presence of metals-rich tailings within the floodplain of Silver Bow Creek. Currently, the SSTOU remedy is performing reasonably well with respect to attainment of some performance goals for contaminants of concern. Despite continuing improvements, exceedances of performance goals within the remediated area were frequent for some COCs, particularly total recoverable copper, mercury, and lead. Total recoverable cadmium showed a lower frequency of exceedances of the performance goals. By contrast, the quality of water in German Gulch at the mouth, and Blacktail Creek at Father Sheehan Park was good again in 2015. Lower overall streamflows likely influenced COC concentrations and loads in 2015. Overall, the frequency and magnitude of exceedances of the ALS for all of the metal COCs (except lead) were lower throughout Silver Bow Creek in 2015 than in prior years since 2010. Lead excursions in 2015 were somewhat higher than in other recent years and all occurred in Q4 in association with elevated turbidity and suspended sediment concentrations.

Of the SSTOU monitoring stations in 2015, copper showed the highest frequency (49%) of exceedances of the performance goals followed by mercury (18%), lead (15%), and cadmium (9%). There were no exceedances of performance goals, for arsenic or zinc. The highest frequencies of COC performance goal exceedances occurred at the Silver Bow Creek sites in

Reach L and at Miles Crossing. In 2014, the highest frequencies of exceedances occurred at the Silver Bow Creek site below Stewart Street at Opportunity. COC concentrations have been consistently reduced at that site in recent years and COC concentrations at the site are now similar to upstream sites. In addition, the Subarea 3 site on Silver Bow Creek above German Gulch had similar COC concentrations to other sites in 2015 whereas in prior years COC concentrations at that location were often quite elevated. The decreasing magnitude of COC concentrations at SS-15A appears to be related to remedial actions that have been completed in Subarea 3 upstream from the site.

Temporal trends for the COC metals indicate continuing positive progress in reducing instream concentrations in Silver Bow Creek since 2005, particularly at the station below Stewart Street at Opportunity. Remediation activities and channel reconstruction was largely completed in Subarea 4 as of 2014. Overall, compliance ratios have decreased markedly over the 10-year period examined.

As in prior years of monitoring, during base streamflow periods in 2015, COC (particularly copper and zinc) concentrations increased incrementally through Subarea 1 before generally leveling off through the remainder of the SSTOU. These results suggest that COC sources remain upstream from the SSTOU and in Subarea 1. Water in Silver Bow Creek entering the SSTOU had detectable copper concentrations at all sites in all sample periods. However, unlike prior years, no sample sites upstream from the SSTOU had copper concentrations exceeding MDEQ [2012a] standards. Copper concentrations above the SSTOU (SS-01, SS-05A, SS-06G; Figure 1-2) did generally increase at each downstream site during all sample periods indicating that copper loading occurs in Butte even during non-runoff periods. Concentrations of total recoverable lead and mercury did exceed MDEQ standards at one or more stations above the SSTOU during one or more quarterly monitoring events in 2015. In Subarea 1, COC loading may be related to groundwater inputs or from remaining tailings deposits in the Subarea 1 floodplain. Planned remedial actions are intended to remedy some of the remaining tailings deposits in Subarea 1 and Subarea 2.

Arsenic concentrations and load estimates in 2015 suggested that minor, diffuse arsenic sources occur within the Silver Bow Creek stream segment in Subarea 1 and the upstream half of Subarea 2. Browns Gulch continues to appear to be a more substantial arsenic point-source as has been suggested in prior monitoring reports. German Gulch streamflows appeared to dilute arsenic concentrations in the mainstem by only a modest amount in 2015. Some remedial actions occurred in the lower portion of German Gulch recently and these actions may reduce arsenic and other COC loading from German Gulch. In 2014, the analytical reporting limit for arsenic was reduced from 0.005 mg/L to 0.001 mg/L and this lower reporting limit will allow for improved resolution of temporal trends at this site through time.

In 2015, the overall greatest magnitude of COC performance standards exceedances occurred at most sample sites in Subarea 1 and Subarea 2 (SS-08 through SS-13 or SS-14; Figure 1-2) in Q4. During that sampling event, elevated turbidity and suspended sediment concentrations were also observed at those sites. These elevated turbidity and suspended sediment concentrations declined sharply downstream from SS-14 in Q4. The suspended sediment concentrations in lower Subarea 2 may be related to the input of Browns Gulch water, which is

known to be sediment-rich [Schmidt et al., 2014]. Similarly elevated turbidity and suspended sediment conditions were observed during the spring snowmelt period (Q2) when the influence of Browns Gulch would likely be greatest. However, during other times of the year, it is likely that the primary contributing source of the suspended sediment was within Silver Bow Creek or the adjacent floodplain. For total recoverable copper, the greatest magnitude of performance standard exceedances at most sample sites in Subarea 1 and Subarea 2 (SS-08 through SS-14; Figure 1-2) was in Q1 and Q2, when all of the sites exceeded either or both of the chronic and acute ALS [MDEQ, 2012a].

We hypothesize that that winter sloughing of instream plant and algal material, combined with ice scouring of the streambanks and bed is the cause of the elevated suspended sediment and COC concentrations in the stream channel in Subarea 1 and 2 in Q4. This phenomenon (elevated turbidity, suspended sediment, and COC concentrations in Subarea 1 and 2 during Q4) has been observed now during both of the last two years of monitoring. Large crops of aquatic plants and algae occur in Silver Bow Creek throughout Subarea 1 and 2 during the summer as a result of nutrient enrichment from the Butte WWTP [Gammons et al., 2011]. These large volumes of organic materials may retain water-borne and sediment-associated metals and as the organic materials die, decay, and slough into the stream channel during the winter, total recoverable COC concentrations become elevated. We have observed a clear positive correlation between total suspended sediment and COC concentrations over the past six years of monitoring. However, because total suspended sediment and volatile suspended sediment concentrations are highly collinear (i.e., correlated) we could not determine whether the volatile sediments (i.e., organic) or the non-volatile (i.e., mineral) sediments are differentially responsible for COC mobilization in the surface water during those periods.

1.5.6 Other Metals

No surface water samples exceeded MDEQ [2012a] standards for any non-COC metal with the exception of iron. Iron concentrations exceeded the standard at all sites between SS-05A and SS-10B (with the exception of SS-07) during Q4. The timing and location of elevated iron concentrations in the SSTOU in Q4 corresponded with elevated turbidity, suspended sediment, and the COC concentrations.

1.5.7 Data Validation

All data derived from laboratory analysis of surface water were validated through field quality control and laboratory quality control procedures. A completed quality assurance and quality control checklist, summary tables of field duplicate and field blank results, and assessments of data quality objectives are included in Appendix A.

There were generally few detections of any analytes in field blanks suggesting that the field techniques introduced little contamination into the samples. However, one exception was dissolved zinc which was detected in 50% of the field blank samples, although at low concentrations (≤0.015 mg/L) relative to the performance goal (0.120 mg/L at water hardness of 100 mg/L). The consistency with which the field blanks were contaminated by dissolved zinc

implies that the field technique introduces a positive bias into the samples (i.e., actual dissolved zinc concentrations in the stream were probably slightly lower than the concentrations in the samples). We suspect that the disposable membrane discs used to filter the dissolved samples were likely responsible for the zinc contamination in the dissolved samples despite rinsing of each filter with one syringe volume (60 mL) of deionized water and one volume of sample water prior to filtration of each sample. Although contamination of dissolved zinc is a concern, the performance goal for zinc is based on total recoverable (i.e., unfiltered) concentrations and therefore contamination of the total recoverable samples by the filter membranes would not have occurred. No field blanks had total recoverable zinc concentrations above the reporting limit suggesting that contamination of those samples was minimal.

There were no exceedances of the data quality objective for sampling precision (i.e., paired sample and duplicate RPDs <25%).

2.0 SEDIMENT

2.1 INTRODUCTION

The Streamside Tailings Operable Unit (SSTOU) Record of Decision (ROD) did not specify numeric remediation standards for concentrations of contaminants of concern in instream sediment, stating "No metals concentration cleanup goal is established by this action" [MDEQ and USEPA, 1995]. The 1998 Explanation of Significant Differences (ESD) [MDEQ and USEPA, 1998] modified the sediment goals to recognize that the realignment and reconstruction of the stream channel in many areas provided for the streambed to be reconstructed with clean materials. In those areas where the existing channel was to be maintained, the sediments would be excavated to a minimum depth of 1 foot and the new channel bed reconstructed with clean fill material. Thus the contaminated sediments were replaced with clean material throughout the operable unit.

2.2 REFERENCE VALUES

Contaminant of concern concentrations in instream sediments are compared to ecological reference values to evaluate the influence of remediation and extent of recontamination from upstream on sediment. These reference values are the "threshold effect concentration" (TEC) and the "probable effect concentration" (PEC) which are consensus-based sediment quality guidelines for benthic organisms [MacDonald et al., 2000]. At metal COC concentrations above the TEC, benthic organisms may be affected by that COC. At metal COC concentrations above the PEC, benthic organisms are likely to be affected by that COC [Table 2-1].

Table 2-1. Reference values for contaminant of concern concentrations (dry weight [DW]) of instream sediments in the Streamside Tailings Operable Unit. The threshold effect concentration (TEC) and probable effect concentration (PEC) were described in MacDonald et al. [2000].

Contaminant of Concern	Threshold Effect Concentration (mg/kg-DW)	Probable Effect Concentration (mg/kg-DW)
Arsenic	9.79	33
Cadmium	0.99	4.98
Copper	31.6	149
Lead	35.8	128
Mercury	0.18	1.06
Zinc	121	459

2.3 METHODS

The purpose of the instream sediment monitoring program is to collect data describing the temporal and spatial variation of COC concentrations in the SSTOU. These data provide a long-term record of environmental conditions in the SSTOU. This long-term record provides a dataset to evaluate the effect of remediation on environmental conditions in the SSTOU over time. Changes to the sediment monitoring program have occurred over time and a record of these changes is provided in the project sampling and analysis plan [Naughton et al., 2015a]. The program attempts to fully adhere to monitoring requirements specified in the SSTOU ROD [Table 2-2].

Table 2-2. Minimum post-remedy instream sediment monitoring requirements specified in the Record of Decision for the Streamside Tailings Operable Unit [MDEQ and USEPA, 1995].

Locations/Physical	Analytical Parameters	Analytes
Surface water locations and at each depositional area.	Metals (total) in three size fractions: <0.065 mm, 0.065-1 mm, 1-2 mm	Arsenic, cadmium, copper, lead, mercury, zinc

2.3.1 Monitoring Locations

In 2015, major remedial actions were complete throughout the SSTOU. Monitoring was conducted at 17 sites in 2015, 13 of which were located within the SSTOU. Locations of some sampling sites were selected based on SSTOU ROD requirements [Table 2-2]. Other sites were selected to provide greater spatial resolution or to assess the influence of specific sediment inputs. Sites located outside the SSTOU were sampled to describe instream sediment conditions in portions of Silver Bow Creek and Blacktail Creek immediately upstream from the SSTOU (SS-01, SS-05A, SS-06G), and in a major tributary (German Gulch) entering Silver Bow Creek within the SSTOU (SS-15G) [Figure 2-1].

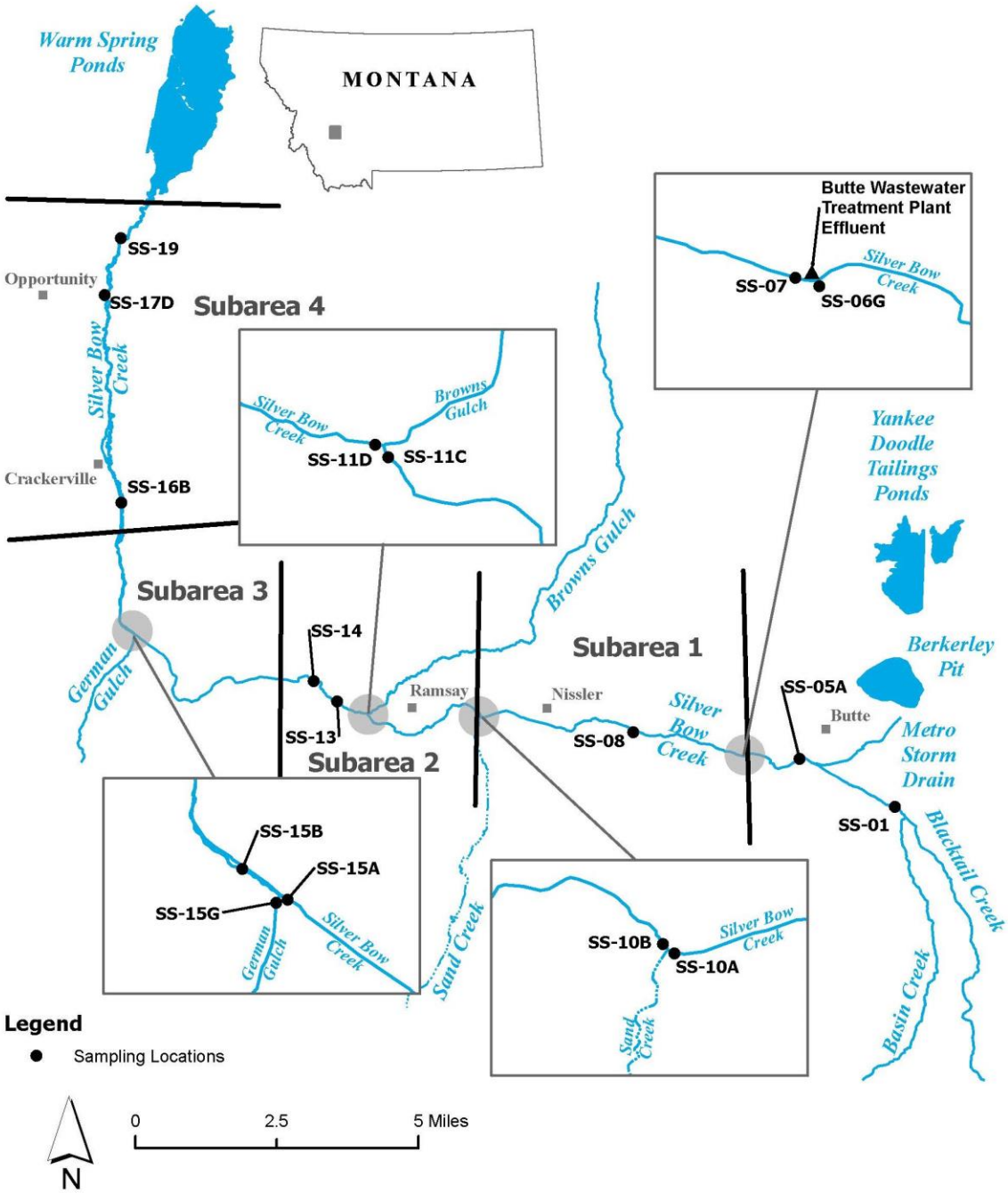

Figure 2-1. Instream sediment sampling locations in the Streamside Tailings Operable Unit, 2015.

Table 2-3. Instream sediment sampling locations in the Streamside Tailings Operable Unit, 2015.

Site ID	Site Location	Location (GPS coordinates, NAD 83)	
		Latitude	Longitude
SS-01	Blacktail Creek at Father Sheehan Park	45.98532	-112.50772
SS-05A	Silver Bow Creek above Butte Reduction Works	45.99653	-112.54343
SS-06G	Silver Bow Creek above WWTP	45.99458	-112.55146
SS-07[11]	Silver Bow Creek below WWTP	45.99648	-112.56316
SS-08	Silver Bow Creek at Rocker	45.99679	-112.56470
SS-10A	Silver Bow Creek above Sand Creek	46.00167	-112.60490
SS-10B	Silver Bow Creek below Sand Creek	46.00375	-112.66084
SS-11C	Silver Bow Creek above Browns Gulch	46.00429	-112.66160
SS-11D	Silver Bow Creek below Browns Gulch	46.00336	-112.70172
SS-13	Silver Bow Creek in Reach L	46.00342	-112.70304
SS-14	Silver Bow Creek at Miles Crossing	46.00647	-112.71394
SS-15A	Silver Bow Creek above German Gulch	46.01142	-112.72270
SS-15B	Silver Bow Creek below German Gulch	46.02170	-112.78969
SS-15G	German Gulch near confluence	46.02263	-112.79175
SS-16	Silver Bow Creek in Reach P near Fairmont	46.02170	-112.79029
SS-17D[12]	Silver Bow Creek below Stewart Street at Opportunity	46.05494	-112.79611
SS-19	Silver Bow Creek at Frontage Road	46.10787	-112.80553

2.3.2 Monitoring Schedule

Monitoring events were scheduled to describe seasonal variation in water chemistry within the SSTOU. One monitoring event occurred during each calendar quarter. Quarterly monitoring events occurred near the end of each quarter. First quarter (Q1) monitoring occurred from March 26–27 prior to spring snowmelt runoff. Second quarter (Q2) monitoring occurred from May 14-15 approximately at the peak of the spring snowmelt runoff period. Third quarter (Q3) monitoring occurred from September 8-9 during low streamflow conditions. Fourth quarter (Q4) monitoring occurred from December 3-4 during late fall.

2.3.3 Monitoring Parameters

Instream sediment samples were analyzed for total extractable dry weight concentrations of COCs (arsenic, cadmium, copper, lead, mercury, and zinc) and other metals (aluminum, antimony, barium, beryllium, boron, chromium, cobalt, iron, manganese, molybdenum, nickel, selenium, silver, uranium, and vanadium).

[11] Co-located with USGS streamflow gauge 12323250.

[12] Co-located with USGS streamflow gauge 12323600.

2.3.4 Sample Collection and Analysis

Sample collection and analysis procedures are described in the project sampling and analysis plan (SAP) [Naughton et al., 2015a] and quality assurance and quality control procedures are described in the program quality assurance project plan (QAPP) [Naughton et al., 2014]. Sample collection methods generally followed standard operating procedures (SOPs) developed for the Clark Fork River [AR, 1992]. Composite sediment samples were collected from at least five depositional areas in the stream according to Montana Department of Environmental Quality (MDEQ) standard operating procedures (SOPs) [MDEQ, 2012b]. Each composite sample was wet sieved in the laboratory into three sediment size fractions: <0.065 mm, 0.065–1 mm, and 1–2 mm. Samples were analyzed by size fraction at Energy Laboratories (Helena, Montana). Laboratory analysis procedures included SW 6010B, SW 6020, SW 7471A, or SW7471B [Table 2-4].

Table 2-4. Analytes and analytical methods for instream sediment monitoring in the Streamside Tailings Operable Unit, 2014.

Parameter	Category	Analytical Method
Arsenic	Contaminants of concern	SW6010B
Cadmium		SW6020
Copper		SW6010B
Lead		SW6010B
Zinc		SW6010B
Mercury		SW7471B
Aluminum	Other metals	SW6010B
Antimony		SW60120
Barium		SW6010B
Beryllium		SW6010B
Boron		SW6010B
Chromium		SW6010B
Cobalt		SW6010B
Iron		SW6010B
Manganese		SW6010B
Molybdenum		SW6020
Nickel		SW6010B
Selenium		SW6020
Silver		SW6020
Uranium		SW6020
Vanadium		SW6010B

2.3.5 Data Analysis

Data were analyzed to assess spatial and temporal patterns in sediment metal and arsenic concentrations. In addition, metal and arsenic concentrations at each sample site were compared to reference values [Table 2-1] to assess exceedances. Sediment metal concentrations were evaluated in three size fractions (<0.065 mm, 0.065-1 mm, 1-2 mm). In addition to these separate size fractions, a proportional concentration (i.e., the weighted mean) has been calculated for each COC in each sample among the three size fractions analyzed for each COC

metal. The weighted mean concentrations were computed for each COC metal on the basis of sample fraction weight among the three size fractions.

For each COC, concentrations for the finest size fraction (<0.065 mm) and the weighted mean concentration for each COC are plotted in a histogram to compare variation among stations and by sample period. Histograms for each COC include results for each of the four 2014 quarterly monitoring events. Data collected in this monitoring program has consistently demonstrated that sediment COC concentrations are highest in the smallest size fraction (<0.065 mm).

2.3.6 Data Validation

Data quality objectives (DQOs) were established in the SSTOU QAPP for "data representativeness", "comparability", "completeness", "sensitivity", "precision", "bias", and "accuracy" [Naughton et al., 2014]. Methods for field and laboratory QA/QC procedures are also described in detail in the project QAPP. A completed QA/QC checklist, summary tables of field duplicate and field blank results, and assessments of data quality objectives are included in Appendix A. Results from the analytical laboratory are included in Appendix B. The 2015 sediment monitoring data are included in Appendix D

Variability in sediment metals concentrations among samples was assessed by comparing field duplicate samples to field samples. Field duplicate samples were collected at the same location and at the same time as field samples and were processed and analyzed by the same methods. The relative percent difference (RPD) between the concentration in the field duplicate and field sample pair was determined for each metal. Two field duplicate samples were collected during each sampling event and RPD statistics were calculated for each field duplicate and field sample pair.

2.4 RESULTS

2.4.1 Sample Size Fraction

The proportion of sediment by size fraction in each sample for 2014 is displayed in Table 2-5.

Table 2-5. Proportion of each sediment sample in four size fractions in the Streamside Tailings Operable Unit, 2015.

Site ID	Location	Proportion of sample in size fraction (%)			
		<0.065 mm	0.065–1 mm	1–2 mm	>2 mm
First Quarter					
SS-01	Blacktail Creek at Father Sheehan Park	6.5	64.0	14.1	15.4
SS-05A	Silver Bow Creek above Butte Reduction Works	4.1	48.9	15.0	32.0
SS-06G	Silver Bow Creek above WWTP	5.9	32.1	43.4	18.6
SS-07	Silver Bow Creek below WWTP	7.7	39.1	20.2	33.0
SS-08	Silver Bow Creek at Rocker	9.6	42.9	36.3	11.2
SS-10A	Silver Bow Creek above Sand Creek	7.9	22.4	21.7	48.0

SS-10B	Silver Bow Creek below Sand Creek	8.9	43.3	10.6	37.2
SS-11C	Silver Bow Creek above Browns Gulch	4.6	20.7	11.4	63.3
SS-11D	Silver Bow Creek below Browns Gulch	3.2	20.9	13.2	62.7
SS-13	Silver Bow Creek in Reach L	18.2	36.7	14.2	30.9
SS-14	Silver Bow Creek at Miles Crossing	4.6	26.9	33.5	35.0
SS-15A	Silver Bow Creek above German Gulch	4.6	22.6	15.8	57.0
SS-15B	Silver Bow Creek below German Gulch	7.8	61.5	11.0	19.7
SS-15G	German Gulch near confluence	10.8	41.7	19.9	27.6
SS-16	Silver Bow Creek in Reach P near Fairmont	3.3	66.9	11.3	18.5
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	2.9	75.4	8.3	13.4
SS-19	Silver Bow Creek at Frontage Road	3.6	39.4	15.5	41.5
Second Quarter					
SS-01	Blacktail Creek at Father Sheehan Park	2.6	53.6	12.8	31.0
SS-05A	Silver Bow Creek above Butte Reduction Works	3.5	38.1	18.3	40.1
SS-06G	Silver Bow Creek above WWTP	7.5	38.3	38.1	16.1
SS-07	Silver Bow Creek below WWTP	6.9	25.2	17.4	50.5
SS-08	Silver Bow Creek at Rocker	13.8	52.0	24.6	9.6
SS-10A	Silver Bow Creek above Sand Creek	13.2	35.1	31.9	19.8
SS-10B	Silver Bow Creek below Sand Creek	3.7	19.4	10.6	66.3
SS-11C	Silver Bow Creek above Browns Gulch	2.8	20.0	14.3	62.9
SS-11D	Silver Bow Creek below Browns Gulch	5.4	29.2	12.4	53.0
SS-13	Silver Bow Creek in Reach L	10.2	29.4	12.7	47.7
SS-14	Silver Bow Creek at Miles Crossing	5.6	33.8	11.7	48.9
SS-15A	Silver Bow Creek above German Gulch	9.0	25.7	16.1	49.2
SS-15B	Silver Bow Creek below German Gulch	3.1	91.2	3.2	2.5
SS-15G	German Gulch near confluence	8.4	56.7	7.8	27.1
SS-16	Silver Bow Creek in Reach P near Fairmont	6.2	54.1	11.4	28.3
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	9.6	78.2	4.9	7.3
SS-19	Silver Bow Creek at Frontage Road	6.0	57.3	12.0	24.7
Third Quarter					
SS-01	Blacktail Creek at Father Sheehan Park	4.1	57.6	14.8	23.5
SS-05A	Silver Bow Creek above Butte Reduction Works	5.2	33.6	11.7	49.5
SS-06G	Silver Bow Creek above WWTP	0.7	27.7	51.6	20.0
SS-07	Silver Bow Creek below WWTP	5.5	34.9	31.9	27.7
SS-08	Silver Bow Creek at Rocker	4.3	22.3	37.6	35.8
SS-10A	Silver Bow Creek above Sand Creek	22.4	40.1	8.4	29.1
SS-10B	Silver Bow Creek below Sand Creek	6.6	27.4	10.3	55.7
SS-11C	Silver Bow Creek above Browns Gulch	2.8	22.1	18.6	56.5
SS-11D	Silver Bow Creek below Browns Gulch	4.6	27.6	12.4	55.4
SS-13	Silver Bow Creek in Reach L	5.4	17.0	18.2	59.4
SS-14	Silver Bow Creek at Miles Crossing	3.5	38.1	11.9	46.5
SS-15A	Silver Bow Creek above German Gulch	6.1	38.7	25.5	29.7
SS-15B	Silver Bow Creek below German Gulch	8.4	61.4	9.5	20.7
SS-15G	German Gulch near confluence	3.0	51.6	22.2	23.2

SS-16	Silver Bow Creek in Reach P near Fairmont	3.5	81.3	9.5	5.7
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	4.1	81.2	9.3	5.4
SS-19	Silver Bow Creek at Frontage Road	2.0	49.4	30.5	18.1
Fourth Quarter					
SS-01	Blacktail Creek at Father Sheehan Park	3.0	60.2	22.3	14.5
SS-05A	Silver Bow Creek above Butte Reduction Works	4.9	35.0	18.4	41.7
SS-06G	Silver Bow Creek above WWTP	1.2	26.2	51.4	21.2
SS-07	Silver Bow Creek below WWTP	1.4	31.8	21.7	45.1
SS-08	Silver Bow Creek at Rocker	4.0	24.0	37.0	35.0
SS-10A	Silver Bow Creek above Sand Creek	16.4	21.1	12.3	50.2
SS-10B	Silver Bow Creek below Sand Creek	13.9	21.7	7.3	57.1
SS-11C	Silver Bow Creek above Browns Gulch	3.7	20.7	13.4	62.2
SS-11D	Silver Bow Creek below Browns Gulch	4.2	18.7	11.5	65.6
SS-13	Silver Bow Creek in Reach L	---	---	---	---
SS-14	Silver Bow Creek at Miles Crossing	---	---	---	---
SS-15A	Silver Bow Creek above German Gulch	---	---	---	---
SS-15B	Silver Bow Creek below German Gulch	---	---	---	---
SS-15G	German Gulch near confluence	---	---	---	---
SS-16	Silver Bow Creek in Reach P near Fairmont	---	---	---	---
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	2.9	32.7	9.5	54.9
SS-19	Silver Bow Creek at Frontage Road	---	---	---	---

--- Not sampled.

2.4.2 Contaminants of Concern

2.4.2.1 Arsenic

Dry weight arsenic concentrations in sediment samples, both as weighted mean and fine fraction (<0.065 mm) concentrations, were highest at several specific stations: Silver Bow Creek above Butte Reduction Works, Silver Bow Creek above and below German Gulch, and in Q1, Silver Bow Creek at Frontage Road [Table 2-6]. Sediment arsenic concentrations were intermediate in Silver Bow Creek at stations above and below the Butte WWTP, at Rocker, in Reach P near Fairmont, and below Stewart Street at Opportunity [Table 2-6]. The lowest sediment arsenic concentrations were observed in Blacktail Creek at Father Sheehan Park, in Silver Bow Creek from above Sand Creek to Miles Crossing, and in German Gulch at its mouth [Table 2-6]. This bimodal spatial pattern of sediment arsenic concentrations, with higher concentrations in the headwaters area and in the lower reaches and lower concentrations in intermediate areas [Figure 2-2], has been observed in each year of monitoring from 2010-2015. Sediment arsenic concentrations did not display a particularly distinct seasonal pattern [Figure 2-2]. However, ten stations had the highest weighted mean concentrations in Q1.

In 2015, within Subareas 1 and 2, weighted mean arsenic concentrations exceeded the TEC reference value at all monitoring sites during at least one quarterly monitoring event with one exception: Silver Bow Creek below Browns Gulch [Table 2-6]. This same pattern was observed

in 2014. One site (Silver Bow Creek at Rocker) also exceeded the PEC reference value during two of the quarterly events. In Subareas 3 and 4, weighted mean arsenic concentrations exceeded the TEC reference value at all six monitoring sites (including German Gulch) during at least three of four quarterly monitoring events [Table 2-6]. Four of the six sites in Subarea 3 and 4 (Silver Bow Creek above and below German Gulch, in Reach P, and at Frontage Road), exceeded the PEC during at least one of the quarterly events [Table 2-6]. Upstream from the SSTOU, all three monitoring stations exceeded the TEC or the PEC at least once [Table 2-6]. Overall, 49 of 61 samples for weighted mean arsenic concentrations exceeded the TEC, and 16 of 61 samples exceeded the PEC during 2015 monitoring events. By comparison, in 2014 50 of 66 samples exceeded the TEC in 2014 and 20 of 66 samples exceeded the PEC.

Table 2-6. Total arsenic concentrations (mg/kg dry weight) in quarterly instream sediment samples from Streamside Tailings Operable Unit monitoring stations, 2014. Sample concentrations are the weighted mean among three sediment size fractions (<0.065 mm, 0.065–1 mm, and 1–2 mm).

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	11.6	7.8	6.4	5.5
SS-05A	Silver Bow Creek above Butte Reduction Works	121.0	132.4	189.3	97.5
SS-06G	Silver Bow Creek above Butte WWTP	29.1	25.4	24.4	69.9
SS-07	Silver Bow Creek below Butte WWTP	32.9	30.8	21.3	19.4
SS-08	Silver Bow Creek at Rocker	63.5	39.5	12.0	16.7
SS-10A	Silver Bow Creek above Sand Creek	19.9	18.4	16.6	12.2
SS-10B	Silver Bow Creek below Sand Creek	13.8	10.1	28.2	21.8
SS-11C	Silver Bow Creek above Browns Gulch	11.1	5.6	4.5	5.7
SS-11D	Silver Bow Creek below Browns Gulch	2.4	4.0	4.5	7.9
SS-13	Silver Bow Creek in Reach L	15.0	16.0	8.7	---
SS-14	Silver Bow Creek at Miles Crossing	10.3	11.8	8.3	---
SS-15A	Silver Bow Creek above German Gulch	142.0	80.6	69.4	---
SS-15G	German Gulch at mouth	32.0	28.9	26.5	---
SS-15B	Silver Bow Creek below German Gulch	46.7	48.0	84.4	---
SS-16B	Silver Bow Creek in Reach P near Fairmont	36.0	35.0	27.9	---
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	25.0	22.1	20.3	24.0
SS-19	Silver Bow Creek at Frontage Road	62.1	18.9	14.0	---

--- Not sampled.

Exceeds the threshold effect concentration [MacDonald et al., 2000].

Exceeds the probable effect concentration [MacDonald et al., 2000].

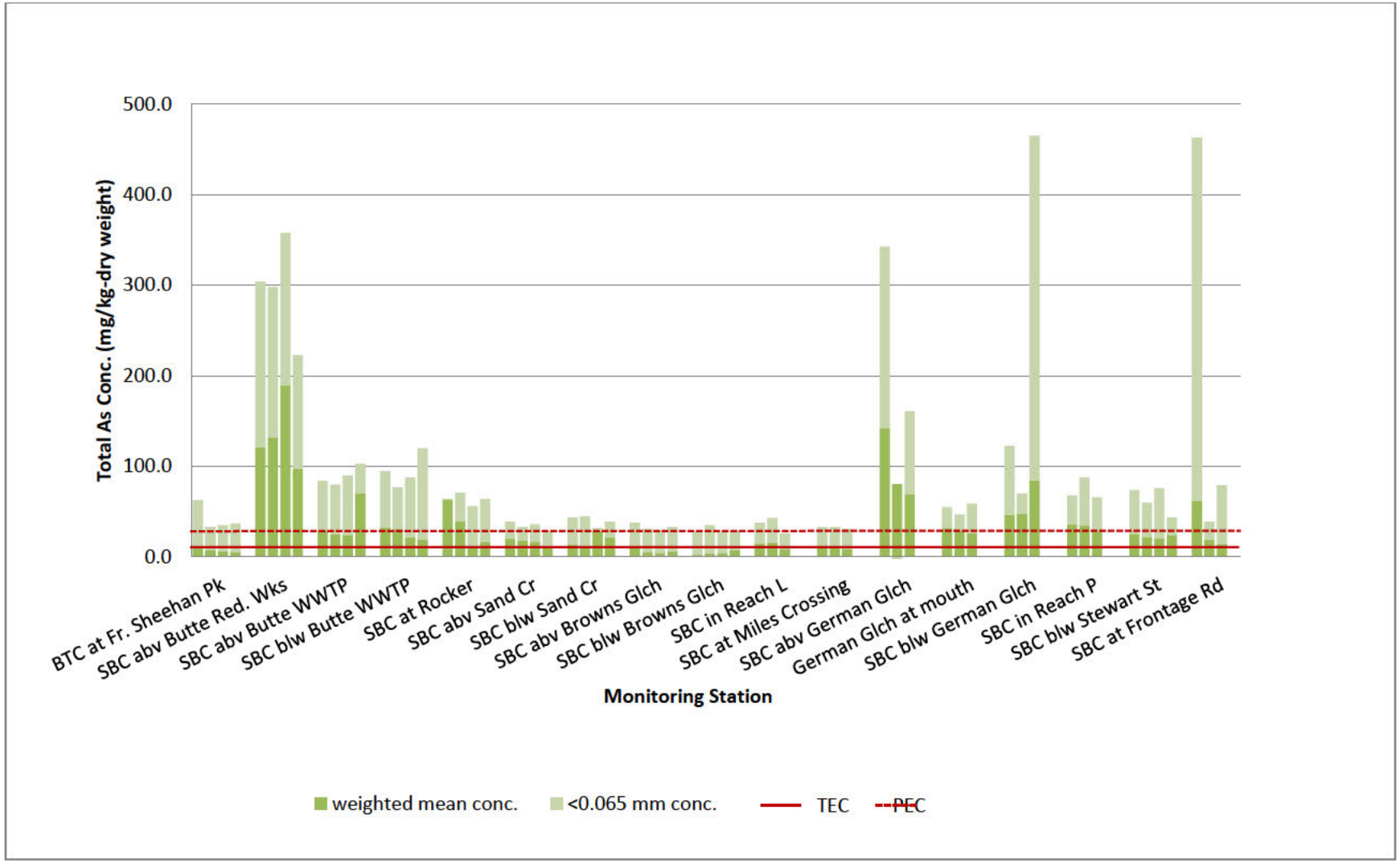

Figure 2-2. Total arsenic concentrations in quarterly instream sediment samples collected at Streamside Tailings Operable Unit monitoring stations, 2015. Solid red line is the "threshold effect concentration" (TEC) and the dashed red line is the "probable effect concentration" (PEC) [MacDonald et al., 2000]. Missing bars indicate that samples were not collected due to channel ice.

2.4.2.2 Cadmium

Cadmium concentrations tended to be slightly higher immediately upstream from Subarea 1 (at all sites except Blacktail Creek at Father Sheehan Park), lower in Subareas 1 and 2 (from Silver Bow Creek below the Butte WWTP to Silver Bow Creek at Miles Crossing), and somewhat higher in Subareas 3 and 4 (sites downstream from Silver Bow Creek at Miles Crossing) [Figure 2-3]. The highest weighted mean cadmium concentrations occurred at Silver Bow Creek sites above the Butte Reduction Works, below the Butte WWTP, at Rocker, above and below Sand Creek, in Reach L, above and below German Gulch, and in Q1 at Frontage Road [Figure 2-3]. The lowest concentrations occurred in German Gulch at its mouth and Blacktail Creek at Father Sheehan Park [Figure 2-3]. This bimodal spatial pattern for cadmium has been commonly observed in all monitoring years from 2010-2015. Cadmium concentrations did not display a particularly distinct seasonal pattern [Figure 2-3]. Nine of 17 stations had the highest weighted mean concentrations in Q1 and four stations had the highest concentrations in either Q2 or Q4 [Figure 2-3].

Within SSTOU Subareas 1 and 2, weighted mean cadmium concentrations exceeded the TEC reference value at all Silver Bow Creek monitoring sites during at least three quarterly monitoring events in 2015 [Table 2-7]. However, in 2015 none of the sites in Subareas 1 and 2 exceeded the PEC reference value [Table 2-7]. In Subareas 3 and 4, weighted mean cadmium concentrations exceeded the TEC reference value at all sites (except German Gulch) during at least one of the quarterly monitoring events [Table 2-7]. Two of the six sites (Silver Bow Creek above German Gulch and at Frontage Road) also exceeded the PEC reference value during Q1 [Table 2-7]. Upstream from the SSTOU, two of the three monitoring stations (all except Blacktail Creek at Father Sheehan Park) exceeded the TEC during at least three of the monitoring periods [Table 2-7]. Weighted mean cadmium concentrations were consistently below the TEC and PEC in Blacktail Creek at Father Sheehan Park. Overall, 51 of 61 samples had weighted mean cadmium concentrations exceeding the TEC and two of 61 samples exceeded the PEC reference value in 2015 [Table 2-7]. By comparison, 52 of 66 samples exceeded the TEC and seven exceeded the PEC in 2014.

Table 2-7. Total cadmium concentrations (mg/kg dry weight) in quarterly instream sediment samples from Streamside Tailings Operable Unit monitoring stations, 2015. Sample concentrations are the weighted mean among three sediment size fractions (<0.065 mm, 0.065–1 mm, and 1–2 mm).

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	0.54	0.30	0.53	0.27
SS-05A	Silver Bow Creek above Butte Reduction Works	2.92	3.25	3.68	3.73
SS-06G	Silver Bow Creek above Butte WWTP	1.87	1.53	0.73	1.07
SS-07	Silver Bow Creek below Butte WWTP	2.64	4.07	1.60	1.25
SS-08	Silver Bow Creek at Rocker	4.10	4.11	2.33	2.12
SS-10A	Silver Bow Creek above Sand Creek	3.54	3.06	3.07	1.63
SS-10B	Silver Bow Creek below Sand Creek	3.76	1.92	2.36	4.36
SS-11C	Silver Bow Creek above Browns Gulch	2.25	1.26	1.43	1.55
SS-11D	Silver Bow Creek below Browns Gulch	1.42	1.29	1.65	2.31
SS-13	Silver Bow Creek in Reach L	3.30	3.77	2.40	---
SS-14	Silver Bow Creek at Miles Crossing	1.39	1.67	1.19	---
SS-15A	Silver Bow Creek above German Gulch	8.39	4.14	3.24	---
SS-15G	German Gulch at mouth	0.23	0.05	0.19	---
SS-15B	Silver Bow Creek below German Gulch	3.89	2.15	2.82	---
SS-16B	Silver Bow Creek in Reach P near Fairmont	1.57	1.52	1.27	---
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	1.29	1.36	1.33	1.95
SS-19	Silver Bow Creek at Frontage Road	8.27	0.80	0.76	---

--- Not sampled

Exceeds the threshold effect concentration [MacDonald et al., 2000].

Exceeds the probable effect concentration [MacDonald et al., 2000].

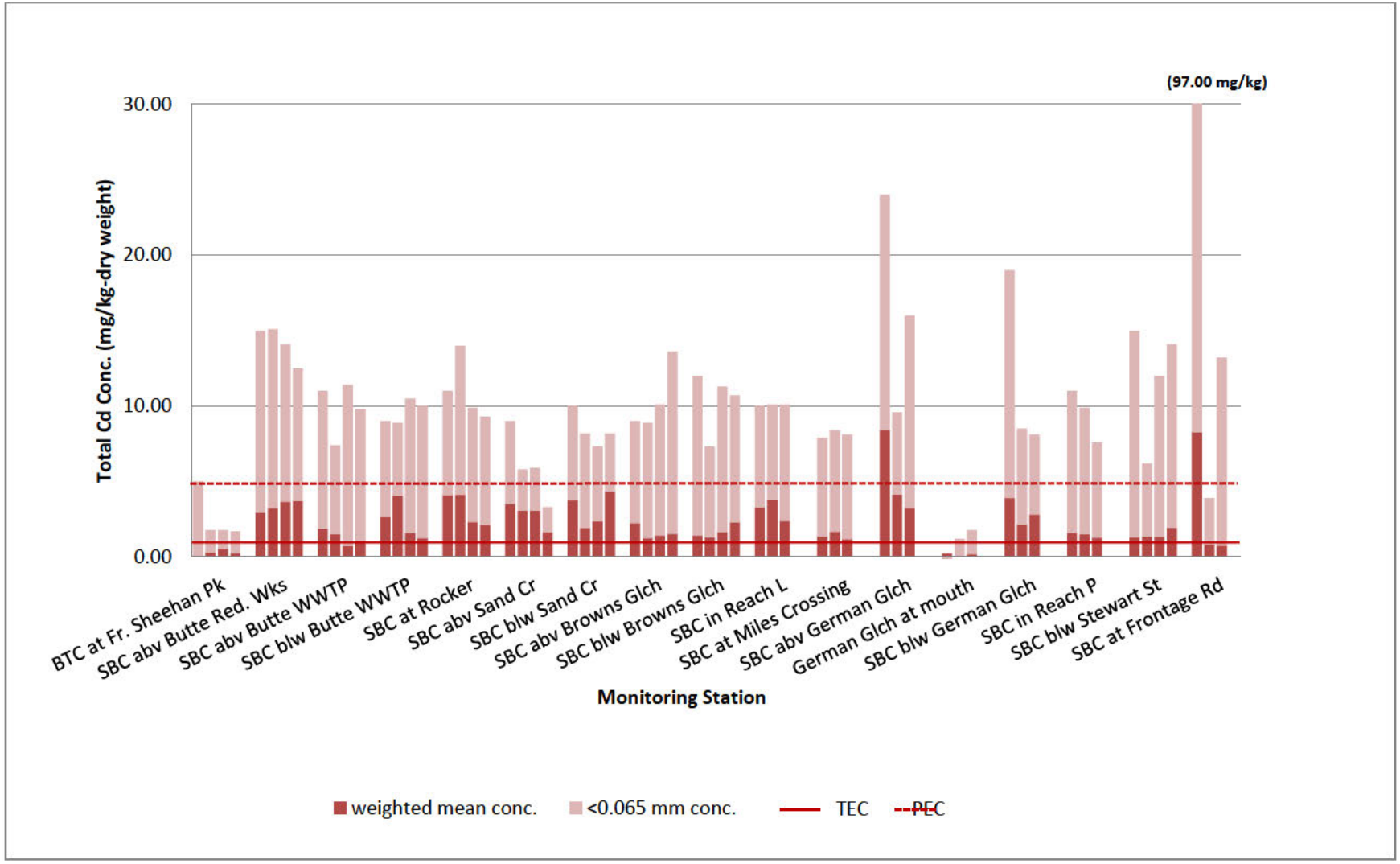

Figure 2-3. Total cadmium concentrations in quarterly instream sediment samples collected at Streamside Tailings Operable Unit monitoring stations, 2015. Solid red line is the "threshold effect concentration" (TEC) and the dashed red line is the "probable effect concentration" (PEC) [MacDonald et al., 2000]. Missing bars indicate that samples were not collected due to channel ice.

2.4.2.3 Copper

The highest sediment copper concentrations occurred upstream from the SSTOU and also in Subarea 3 [Figure 2-4]. In addition, one sample collected in Silver Bow Creek at Frontage Road in Q1 had an extremely high (35,700 mg/kg-DW) copper concentration in the fine fraction (<0.065 mm) [Figure 2-4]. The copper concentration in that sample was nearly five times higher than any other measured sediment copper concentration (in any size fraction) since monitoring began in the SSTOU in 2002. This sample was reanalyzed by the laboratory and results were similar indicating that the result was not erroneously high due to laboratory or transcription error. This very elevated concentration was only observed in Q1 at that site; during other sample periods copper concentrations in samples from the site were similar to, or lower than the concentrations at all other sites [Figure 2-4]. Outside of the Q1 sample form Stewart Street at Frontage Road, the highest weighted mean copper concentrations occurred at Silver Bow Creek above the Butte Reduction Works and Silver Bow Creek above German Gulch [Figure 2-4]. This bimodal pattern for copper was similar to the pattern for several other COCs. Lowest copper concentrations were observed in German Gulch and in Blacktail Creek at Father Sheehan Park [Figure 2-4]. The elevated concentrations in Silver bow Creek above the Butte Reduction Works and above German Gulch has been observed regularly during the 2010-2015 period. Sediment copper concentrations did not display any distinct seasonal pattern [Figure 2-4]. Six of 17 stations had the highest weighted mean concentrations in Q1 and five stations had the highest concentrations in Q2 [Figure 2-4].

Within Subareas 1 and 2, weighted mean copper concentrations exceeded the TEC reference value at all monitoring sites during at least three of four monitoring periods in 2015 [Table 2-8]. Five of the eight sites also exceeded the PEC reference value during at least one of the quarterly events [Table 2-8]. The Silver Bow Creek sites below the Butte WWTP and at Rocker exceeded the PEC in all quarters [Table 2-8]. In Subareas 3 and 4, weighted mean sediment copper concentrations exceeded the TEC at all six sites (including German Gulch) during at least two quarters [Table 2-8]. Four of the six sites also had exceedances of the higher PEC threshold during at least one quarter [Table 2-8]. German Gulch and Silver Bow Creek below Stewart Street at Opportunity had no exceedances of the PEC during 2015 monitoring events [Table 2-8]. Upstream from the SSTOU, all three monitoring stations exceeded the TEC, the PEC, or both, during all quarters and Silver Bow Creek sites above the Butte Reduction Works and above the Butte WWTP exceeded the PEC during all quarters [Table 2-8]. Overall, 60 of 61 samples exceeded the TEC and 31 samples exceeded the PEC in 2015 [Table 2-8]. By comparison, 63 of 66 samples exceeded the TEC and 34 samples exceeded the PEC in 2014.

Table 2-8. Total copper concentrations (mg/kg dry weight) in quarterly instream sediment samples from Streamside Tailings Operable Unit monitoring stations, 2015. Sample concentrations are the weighted mean among three sediment size fractions (<0.065 mm, 0.065–1 mm, and 1–2 mm).

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	66.9	59.8	58.4	42.5
SS-05A	Silver Bow Creek above Butte Reduction Works	808.5	808.8	1615.3	771.3
SS-06G	Silver Bow Creek above Butte WWTP	166.6	185.7	104.7	356.6
SS-07	Silver Bow Creek below Butte WWTP	298.5	349.8	199.0	161.0
SS-08	Silver Bow Creek at Rocker	322.4	307.2	151.9	176.5
SS-10A	Silver Bow Creek above Sand Creek	188.2	188.2	230.8	86.2
SS-10B	Silver Bow Creek below Sand Creek	240.1	116.9	144.7	319.2
SS-11C	Silver Bow Creek above Browns Gulch	144.5	72.0	65.0	125.7
SS-11D	Silver Bow Creek below Browns Gulch	54.3	70.0	73.7	106.3
SS-13	Silver Bow Creek in Reach L	181.4	226.0	122.3	---
SS-14	Silver Bow Creek at Miles Crossing	75.0	115.3	67.2	---
SS-15A	Silver Bow Creek above German Gulch	793.2	518.2	377.1	---
SS-15G	German Gulch at mouth	30.1	43.5	36.8	---
SS-15B	Silver Bow Creek below German Gulch	337.0	271.6	162.3	---
SS-16B	Silver Bow Creek in Reach P near Fairmont	163.0	215.2	142.2	---
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	113.1	121.6	104.5	143.7
SS-19	Silver Bow Creek at Frontage Road	3118.6	71.1	68.1	---

--- Not sampled

Exceeds the threshold effect concentration [MacDonald et al., 2000].

Exceeds the probable effect concentration [MacDonald et al., 2000].

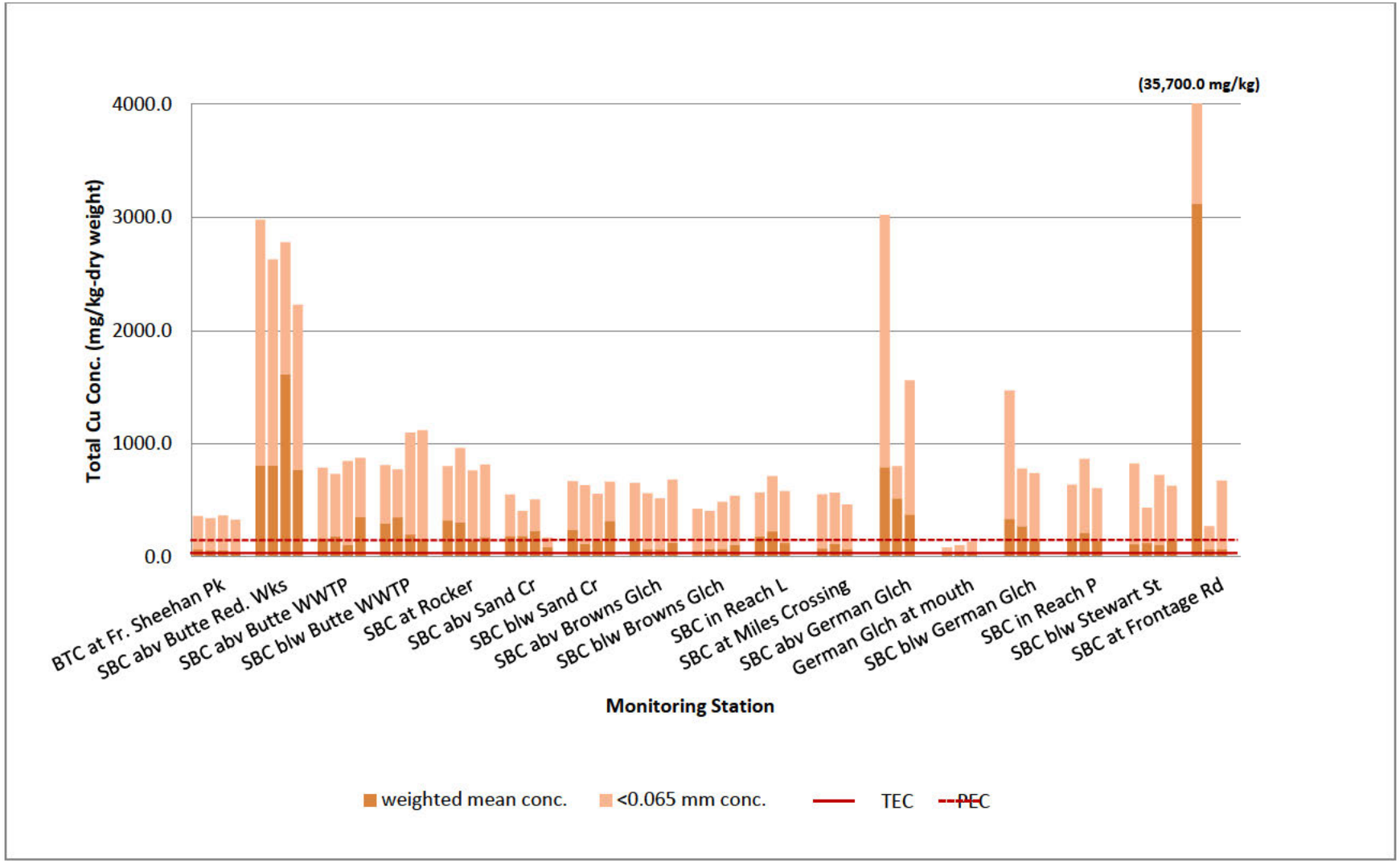

Figure 2-4. Total copper concentrations in quarterly instream sediment samples collected at Streamside Tailings Operable Unit monitoring stations, 2015. Solid red line is the "threshold effect concentration" (TEC) and the dashed red line is the "probable effect concentration" (PEC) [MacDonald et al., 2000]. Missing bars indicate that samples were not collected due to channel ice.

2.4.2.4 Lead

Sediment lead concentrations were elevated at Silver Bow Creek above the Butte Reduction Works and above German Gulch [Figure 2-5]. Downstream from each of those sites, lead concentrations tended to decrease with distance downstream from each [Figure 2-5]. Lead concentrations in Silver Bow Creek above German Gulch were more variable seasonally compared to the above Butte Reduction Works site, where concentrations were more consistently elevated [Figure 2-5]. Lead concentrations were relatively low in Subarea 2 (from Silver Bow Creek above Sand Creek to Silver Bow Creek at Miles Crossing) [Figure 2-5]. Lead concentrations were also relatively low in Subarea 4 (Silver Bow Creek in Reach P to Silver Bow Creek at Frontage Road), although not as low as in Subarea 2 [Figure 2-5]. Lead concentrations were also relatively low in German Gulch and Blacktail Creek at Father Sheehan Park [Figure 2-5]. Similar patterns of lead concentrations have been commonly observed in all monitoring years from 2010-2015. Sediment lead concentrations did not display any particularly distinct seasonal pattern [Figure 2-5]. Nine of 17 stations had the highest weighted mean concentrations in Q1 and four stations had the highest concentrations in or Q3 [Figure 2-5].

Within SSTOU Subareas 1 and 2, weighted mean lead concentrations exceeded the TEC at all sites (except Silver Bow Creek below Browns Gulch) during at least one monitoring event in 2015 [Table 2-9]. None of the six Subarea 1 and 2 sites had weighted mean sediment lead concentrations exceeding the PEC during any of the four quarterly monitoring events in 2015 [Table 2-9]. In Subareas 3 and 4, weighted mean sediment lead concentrations exceeded the TEC at all sites (except German Gulch) during at least two quarters [Table 2-9]. Silver Bow Creek above German Gulch, located in Subarea 3, also exceeded the PEC in all periods when the site was sampled[Table 2-9] . None of the three sample sites in Subarea 4 had weighted mean lead concentrations exceeding the PEC in 2015 [Table 2-9]. Upstream from the SSTOU, all three of the monitoring sites exceeded the TEC or the PEC during at least one quarter [Table 2-9]. Silver Bow Creek above the Butte Reduction Works exceeded the PEC during all four quarters in 2015 [Table 2-9]. Overall, 45 of 61 samples had weighted mean lead concentrations which exceeded the TEC and 7 samples had concentrations which exceeded the PEC in 2015 [Table 2-9]. by comparison, 46 of 66 samples exceeded the TEC in 2014 and 14 samples exceeded the PEC.

Table 2-9. Total lead concentrations (mg/kg dry weight) in quarterly instream sediment samples from Streamside Tailings Operable Unit monitoring stations, 2015. Sample concentrations are the weighted mean among three sediment size fractions (<0.065 mm, 0.065–1 mm, and 1–2 mm).

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	40.4	25.3	31.1	15.7
SS-05A	Silver Bow Creek above Butte Reduction Works	202.6	177.0	333.2	182.6
SS-06G	Silver Bow Creek above Butte WWTP	84.2	90.0	50.6	76.9
SS-07	Silver Bow Creek below Butte WWTP	115.9	109.2	102.7	67.2
SS-08	Silver Bow Creek at Rocker	117.1	105.9	60.4	62.9
SS-10A	Silver Bow Creek above Sand Creek	107.2	96.9	74.6	58.0
SS-10B	Silver Bow Creek below Sand Creek	77.6	42.5	48.4	83.5
SS-11C	Silver Bow Creek above Browns Gulch	44.7	38.1	25.9	20.7
SS-11D	Silver Bow Creek below Browns Gulch	22.5	28.5	32.6	31.3
SS-13	Silver Bow Creek in Reach L	43.6	56.3	34.9	---
SS-14	Silver Bow Creek at Miles Crossing	28.2	32.2	49.7	---
SS-15A	Silver Bow Creek above German Gulch	262.0	168.2	160.1	---
SS-15G	German Gulch at mouth	23.0	15.7	24.1	---
SS-15B	Silver Bow Creek below German Gulch	119.3	109.7	57.4	---
SS-16B	Silver Bow Creek in Reach P near Fairmont	93.5	103.1	69.6	---
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	66.0	65.5	43.8	49.7
SS-19	Silver Bow Creek at Frontage Road	89.2	43.1	30.7	---

--- Not sampled

Exceeds the threshold effect concentration [MacDonald et al., 2000].

Exceeds the probable effect concentration [MacDonald et al., 2000].

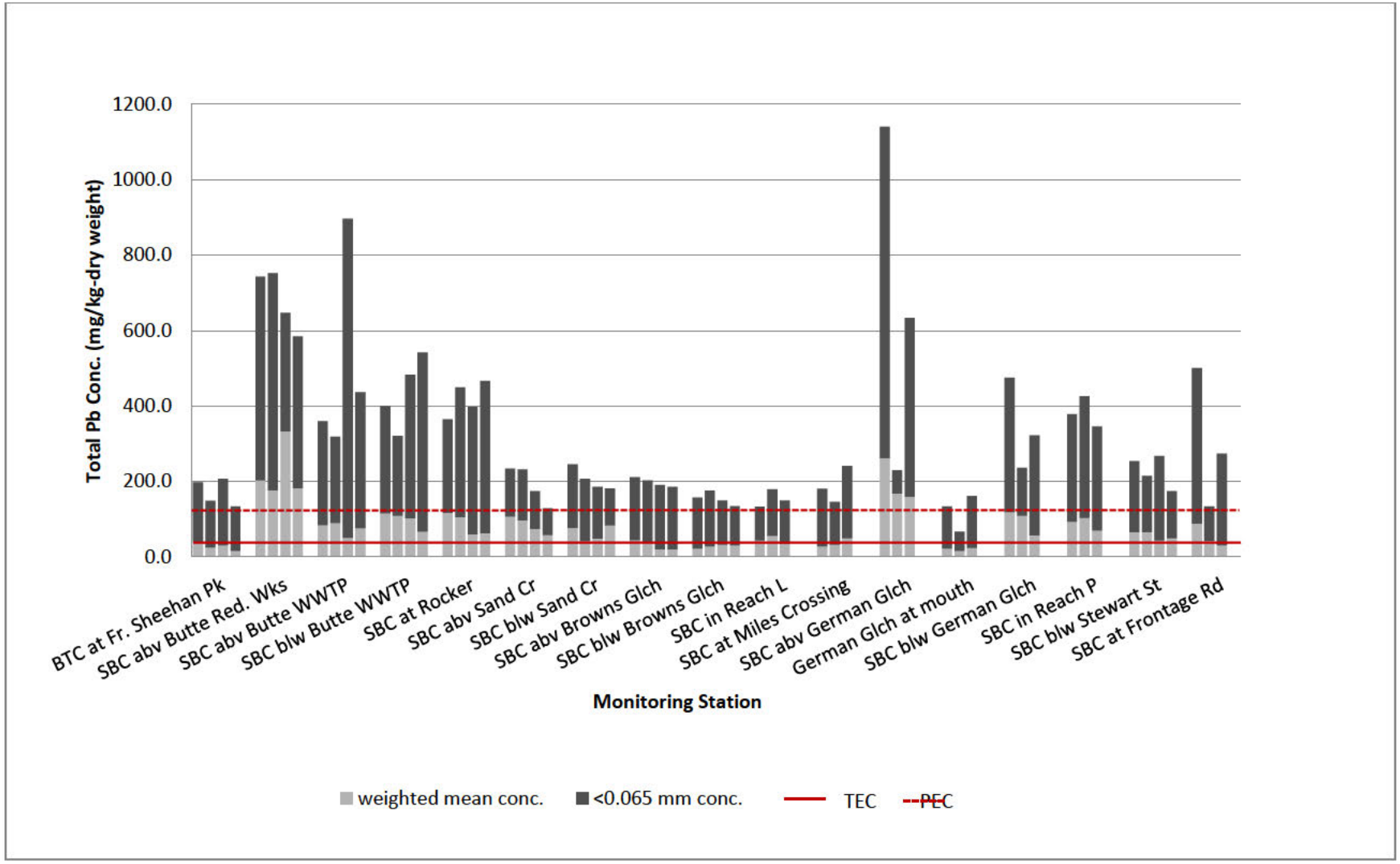

Figure 2-5. Total lead concentrations in quarterly instream sediment samples collected at Streamside Tailings Operable Unit monitoring stations, 2015. Solid red line is the "threshold effect concentration" (TEC) and the dashed red line is the "probable effect concentration" (PEC) [MacDonald et al., 2000]. Missing bars indicate that samples were not collected due to channel ice.

2.4.2.5 Mercury

Weighted mean and fine fraction (<0.065 mm) mercury concentrations were highest in Silver Bow Creek at Rocker (Subarea 1)and in Silver Bow Creek above German Gulch (Subarea 3) [Figure 2-6]. The lowest concentrations occurred in Blacktail Creek at Father Sheehan Park and in German Gulch Figure 2-6]. Aside from the Silver Bow Creek at Rocker site, mercury concentrations appeared to decline from the Silver Bow Creek above the Butte Reduction Works site downstream through Subarea 1 and 2 to Silver Bow Creek at Miles Crossing [Figure 2-6]. Mercury concentrations were also relatively high in Silver Bow Creek throughout Subarea 3 and 4 (all sites downstream from Silver Bow Creek at Miles Crossing) and concentrations appeared to decline with downstream distance from Silver Bow Creek above Browns Gulch [Figure 2-6]. We have observed similar trends during other monitoring years from 2010-2015. Sediment mercury concentrations did not display any distinct seasonal pattern [Figure 2-6]. Nearly half of the stations had the highest weighted mean concentrations in Q2, and five stations had the highest concentrations in Q1 [Table 2-10].

Within SSTOU Subareas 1 and 2, weighted mean mercury concentrations exceeded the TEC at five of the eight Silver Bow Creek monitoring sites during at least two of the quarterly monitoring events in 2015 [Table 2-10]. Three sites, Silver Bow Creek above and below Browns Gulch and at Miles Crossing, showed no exceedances of the TEC threshold. None of the eight sites exceeded the PEC threshold during any of the quarterly events [Table 2-10]. In Subareas 3 and 4, weighted mean mercury concentrations exceeded the TEC at five of the six monitoring sites; Table 2-10). Only one of the six sites in Subareas 3 and 4, Silver Bow Creek above German Gulch, exceeded the PEC threshold during the Q1 monitoring event; Table 2-10). German Gulch near its mouth did not show any exceedances of the TEC or PEC thresholds during the 2015 monitoring events. Upstream from the SSTOU, only one of the three sites, Silver Bow Creek above the Butte Reduction Works, exceeded the TEC during two quarterly monitoring events. Overall, 27 of 61 SSTOU samples for weighted mean mercury concentrations exceeded the TEC and just one of 61 site measurements exceeded the PEC [Table 2-10]. This compares to 33 of 66 samples exceeding the TEC in 2014, and two of 66 samples exceeding the PEC.

Table 2-10. Total mercury concentrations (mg/kg dry weight) in quarterly instream sediment samples from Streamside Tailings Operable Unit monitoring stations, 2015. Sample concentrations are the weighted mean among three sediment size fractions (<0.065 mm, 0.065–1 mm, and 1–2 mm).

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	0.01	0.01	0.01	0.01
SS-05A	Silver Bow Creek above Butte Reduction Works	0.14	0.19	0.21	0.16
SS-06G	Silver Bow Creek above Butte WWTP	0.14	0.13	0.05	0.01
SS-07	Silver Bow Creek below Butte WWTP	0.24	0.32	0.16	0.13
SS-08	Silver Bow Creek at Rocker	0.56	0.58	0.30	0.28
SS-10A	Silver Bow Creek above Sand Creek	0.27	0.35	0.29	0.07
SS-10B	Silver Bow Creek below Sand Creek	0.30	0.14	0.30	0.42
SS-11C	Silver Bow Creek above Browns Gulch	0.14	0.12	0.04	0.12
SS-11D	Silver Bow Creek below Browns Gulch	0.04	0.05	0.07	0.09
SS-13	Silver Bow Creek in Reach L	0.26	0.26	0.08	---
SS-14	Silver Bow Creek at Miles Crossing	0.04	0.14	0.08	---
SS-15A	Silver Bow Creek above German Gulch	1.13	0.52	0.49	---
SS-15G	German Gulch at mouth	0.02	0.01	0.03	---
SS-15B	Silver Bow Creek below German Gulch	0.54	0.35	0.17	---
SS-16B	Silver Bow Creek in Reach P near Fairmont	0.27	0.28	0.24	---
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	0.08	0.25	0.19	0.17
SS-19	Silver Bow Creek at Frontage Road	0.20	0.04	0.09	---

--- Not sampled

Exceeds the threshold effect concentration [MacDonald et al., 2000].

Exceeds the probable effect concentration [MacDonald et al., 2000].

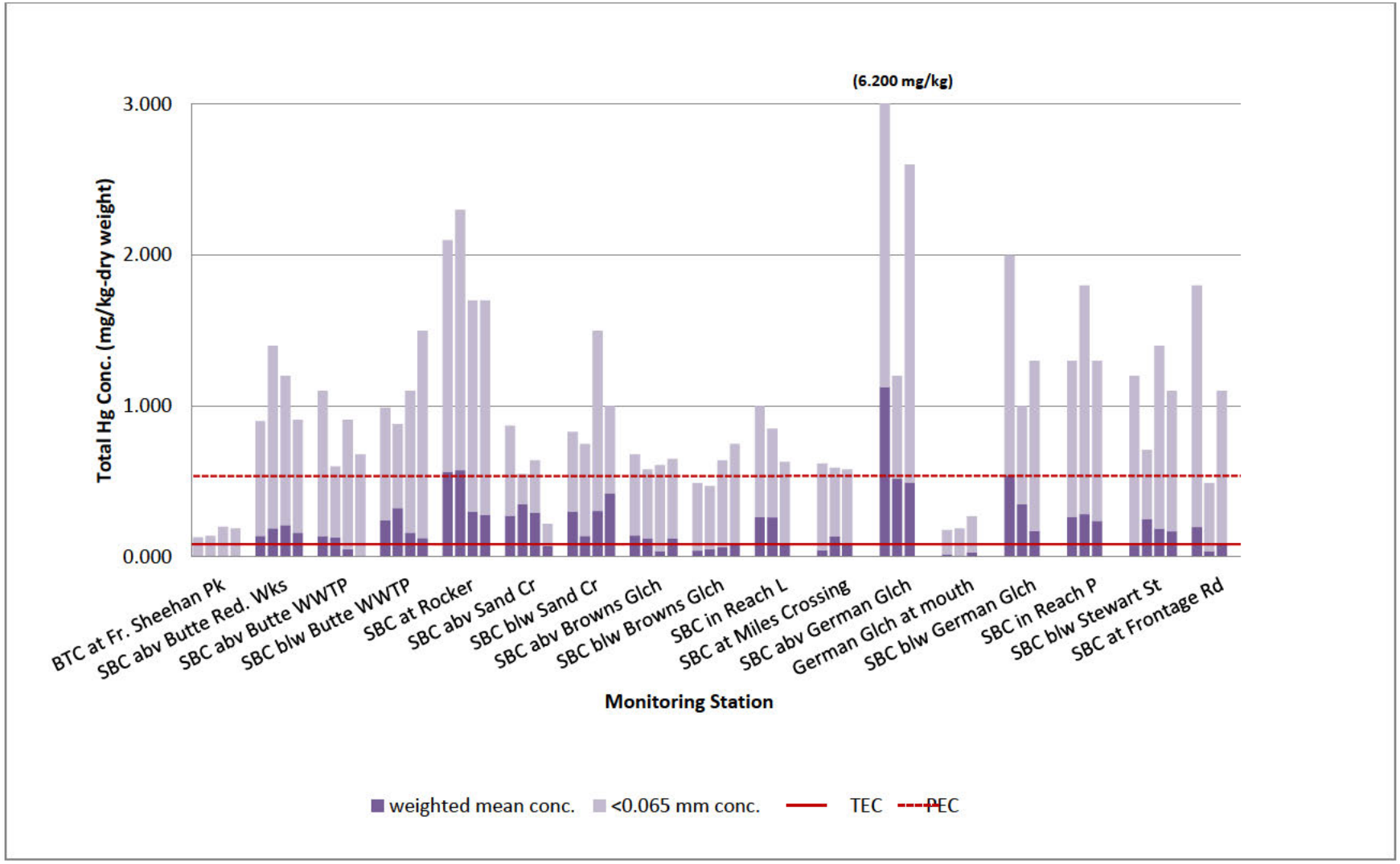

Figure 2-6. Total mercury concentrations in quarterly instream sediment samples collected at Streamside Tailings Operable Unit monitoring stations, 2015. Solid red line is the "threshold effect concentration" (TEC) and the dashed red line is the "probable effect concentration" (PEC) [MacDonald et al., 2000]. Missing bars indicate that samples were not collected due to channel ice.

2.4.2.6 Zinc

Spatial patterns for sediment zinc concentrations [Figure 2-7] were similar to most of the other COCs with high concentrations in Silver Bow Creek above the Butte Reduction Works and above German Gulch and declining trends downstream from each of those sites [Figure 2-7]. As with copper, the Q1 sample from Silver Bow Creek at Frontage Road had very high zinc concentration but other samples from the site were not similarly elevated [Figure 2-7]. The lowest zinc concentrations were in German Gulch and Blacktail Creek at Father Sheehan Park [Figure 2-7]. The spatial pattern for sediment zinc concentrations has been similar in each year from 2010-2015 although the magnitude of concentrations has been somewhat variable. Sediment zinc concentrations did not show a particularly distinct seasonal pattern [Figure 2-7]. Six of 17 stations had the highest weighted mean concentrations in Q2, and three to four stations had the highest concentrations in either Q1, Q3 or Q4 [Table 2-11].

Within SSTOU Subarea 1 and 2, weighted mean zinc concentrations exceeded the TEC at all eight Silver Bow Creek monitoring sites during all of the monitoring events in 2015 [Table 2-11]. Five Subarea 1 and 2 sites (Silver Bow Creek below the Butte WWTP, at Rocker, above and below Sand Creek, and in Reach L) also exceeded the PEC during at least two monitoring events [Table 2-11]. In Subarea 3 and 4, weighted mean zinc concentrations exceeded the TEC at five of the six monitoring sites (all except German Gulch) [Table 2-11]. Four of the six sites also exceeded the PEC during at least one monitoring event [Table 2-11]. Upstream from the SSTOU, all three monitoring sites exceeded the TEC or the PEC at least three times in 2015, and the site above the Butte Reduction Works exceeded the PEC during all four monitoring events [Table 2-11]. Silver Bow Creek above the Butte WWTP also exceeded the PEC in 2015 [Table 2-11]. Overall, 57 of 61 samples for weighted mean zinc concentrations exceeded the TEC and 29 samples exceeded the PEC [Table 2-11]. By comparison, 60 of 66 samples exceeded the TEC and 27 samples exceeded the PEC in 2014.

Table 2-11. Total zinc concentrations (mg/kg dry weight) in quarterly instream sediment samples from Streamside Tailings Operable Unit monitoring stations, 2015. Sample concentrations are the weighted mean among three sediment size fractions (<0.065 mm, 0.065–1 mm, and 1–2 mm).

Site ID	Site Location	Sample Quarter			
		Q1	Q2	Q3	Q4
SS-01	Blacktail Creek at Father Sheehan Park	138.3	144.7	234.8	88.7
SS-05A	Silver Bow Creek above Butte Reduction Works	1181.0	1351.7	1499.0	1168.9
SS-06G	Silver Bow Creek above Butte WWTP	564.9	560.8	265.0	388.8
SS-07	Silver Bow Creek below Butte WWTP	793.0	1300.1	667.8	662.6
SS-08	Silver Bow Creek at Rocker	650.6	783.9	356.0	397.6
SS-10A	Silver Bow Creek above Sand Creek	614.3	593.6	682.1	299.3
SS-10B	Silver Bow Creek below Sand Creek	563.4	356.3	408.8	838.3
SS-11C	Silver Bow Creek above Browns Gulch	336.6	201.8	222.9	418.2
SS-11D	Silver Bow Creek below Browns Gulch	164.3	245.8	252.4	329.4
SS-13	Silver Bow Creek in Reach L	607.1	668.6	431.2	---
SS-14	Silver Bow Creek at Miles Crossing	314.1	375.6	285.8	---
SS-15A	Silver Bow Creek above German Gulch	2519.4	1489.0	1048.4	---
SS-15G	German Gulch at mouth	69.2	68.4	50.0	---
SS-15B	Silver Bow Creek below German Gulch	814.7	606.7	1001.9	---
SS-16B	Silver Bow Creek in Reach P near Fairmont	470.5	509.0	504.2	---
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	335.8	444.4	430.2	412.8
SS-19	Silver Bow Creek at Frontage Road	1568.4	256.4	260.3	---

--- Not sampled

Exceeds the threshold effect concentration [MacDonald et al., 2000].

Exceeds the probable effect concentration [MacDonald et al., 2000].

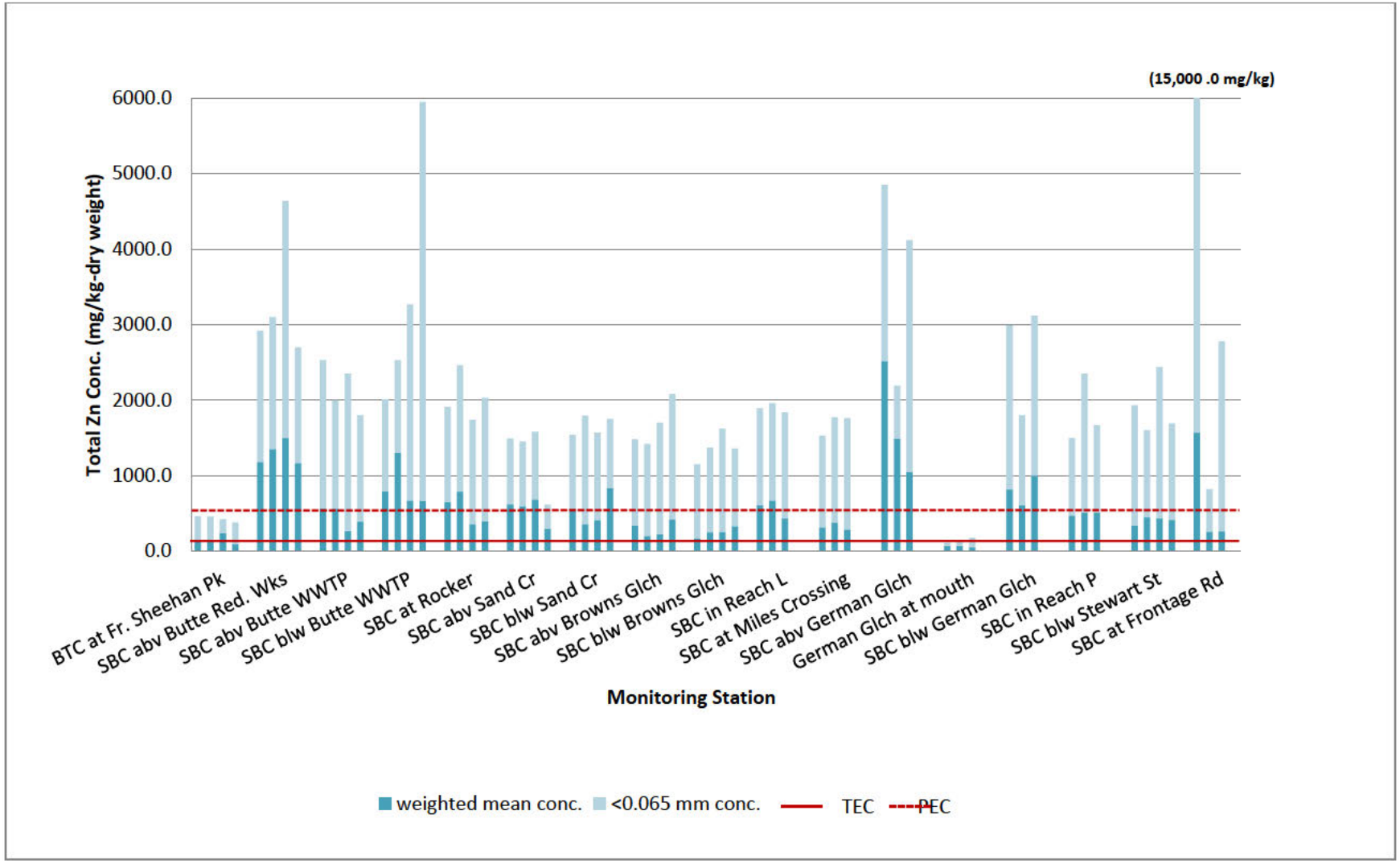

Figure 2-7. Total zinc concentrations in quarterly instream sediment samples collected at Streamside Tailings Operable Unit monitoring stations, 2015. Solid red line is the "threshold effect concentration" (TEC) and the dashed red line is the "probable effect concentration" (PEC) [MacDonald et al., 2000]. Missing bars indicate that samples were not collected due to channel ice.

2.4.3 Other Metals

Summary statistics for non-COC sediment concentrations are presented by sediment size fraction in Table 2-12. Actual sample concentrations for all non-COCs are available in Appendix D. Two of the non-COCs have identified reference values [MacDonald et al., 2000]; chromium and nickel. Therefore, exceedances of the reference values for chromium and nickel are discussed further.

Chromium exceeded the TEC (43.4 mg/kg-DW) in 48% (29 of 61) of the samples and exceeded the PEC (111 mg/kg-DW) in 0% of the samples in the fine sediment size fraction (<0.065 mm). One (2%) of the samples had chromium concentration exceeding the TEC in the mid sediment size fraction (0.065-1 mm). Exceedances of the chromium TEC in those sediment size fractions occurred in all SSTOU sample sites except SS-10A and SS-10B, SS-11C, and SS-15A.\

Nickel exceeded the TEC (22.7 mg/kg-DW) in 39% (24 of 61) of the samples and exceeded the PEC (48.6 mg/kg-DW) in 0% of the samples in the fine sediment size fraction (<0.065 mm). One (2%) of the samples had nickel concentration exceeding the TEC in the mid sediment size fraction (0.065-1 mm). Exceedances of the nickel TEC occurred at all SSTOU sample sites except SS-01, SS-10A, SS-10B, and SS-llC.

Table 2-12. Summary statistics for dry weight sediment metal concentrations (stratified by size fraction) in the Streamside Tailings Operable Unit (SSTOU), 2015. No metals in this table are contaminants of concern in the SSTOU.

Metal	Sieve Size (mm)	Samples	Reporting Limit (mg/kg)		Sample Concentration (mg/kg-DW)			
			Min	Max	Min	Max	Mean	Standard Deviation
Aluminum	<0.065	61	6	20	15,400	44,800	24,298	5,358
	0.065-1	61	5	6	2,680	18,000	6,537	2,871
	1-2	61	5	6	2,050	33,500	5,957	5,416
Antimony	<0.065	61	5	5	ND	ND	---	---
	0.065-1	61	5	5	ND	ND	---	---
	1-2	61	5	5	ND	ND	---	---
Barium	<0.065	61	5	5	205	611	361	80
	0.065-1	61	5	5	18	275	119	50
	1-2	61	5	5	34	413	115	74
Beryllium	<0.065	61	5	5	ND	ND	---	---
	0.065-1	61	5	5	ND	ND	---	---
	1-2	61	5	5	ND	ND	---	---
Boron	<0.065	61	5	10	7	21	12	3
	0.065-1	61	5	5	ND	ND	---	---
	1-2	61	5	5	ND	7	---	---
Chromium	<0.065	61	5	5	18	72	42	13
	0.065-1	61	5	5	ND	65	---	---

	1-2	61	5	5	ND	18	---	---
Cobalt	<0.065	61	5	5	ND	46	---	---
	0.065-1	61	5	5	ND	28	---	---
	1-2	61	5	5	ND	9	---	---
Iron	<0.065	61	5	20	22,700	61,800	32,744	7,910
	0.065-1	61	5	520	5,680	179,000	23,617	25,092
	1-2	61	5	9	4,910	25,200	9,724	4,336
Manganese	<0.065	61	5	5	572	9,750	3,038	2,165
	0.065-1	61	5	5	134	1,760	625	372
	1-2	61	5	5	97	7,940	712	1,064
Molybdenum	<0.065	61	5	5	ND	34	---	---
	0.065-1	61	5	5	ND	16	---	---
	1-2	61	5	5	ND	8	---	---
Nickel	<0.065	61	5	5	11	36	22	6
	0.065-1	61	5	5	ND	26	---	---
	1-2	61	5	5	ND	14	---	---
Selenium	<0.065	61	5	5	ND	7	6	1
	0.065-1	61	5	5	ND	ND	---	---
	1-2	61	5	5	ND	ND	---	---
Silver	<0.065	61	5	5	ND	16	---	---
	0.065-1	61	5	5	ND	9	---	---
	1-2	61	5	5	ND	13	---	---
Uranium	<0.065	61	5	5	ND	63	---	---
	0.065-1	61	5	5	ND	39	---	---
	1-2	61	5	5	ND	ND	---	---
Vanadium	<0.065	61	1	10	32	110	72	19
	0.065-1	61	1	7	5	210	52	38
	1-2	61	1	7	8	42	18	6

ND Not detected at analytical reporting limit.

--- Not calculated because one or more samples had concentrations below the reporting limit.

2.4.4 Data Validation

Data quality objectives (DQOs) were evaluated for sampling precision. Seven paired field sample and field duplicate concentrations were compared to evaluate sampling precision. In each field sample and duplicate pair, 63 comparisons were made; comparisons were made for each pair of 21 metals and in three size fractions (<0.065 mm, 0.065–1 mm, and 1–2 mm). In total, there were 441 sample and duplicate pairs. Of those pairs, relative percent difference (RPD) comparisons were made. In total, 43 of 441 (9.8%) had RPDs greater than the DQO specified for sampling precision (40%). Of the 441 pairs, 240 (54.4%) were <5 times the RL and therefore RPD calculations were not evaluated.

2.5 DISCUSSION

2.5.1 Sample Size Fraction

Sediment data collected in the SSTOU in 2015 and prior years have demonstrated that the sediment size fraction is strongly related (inversely) to most metal concentrations, and these results are consistent with the findings of others [Horowitz and Ehrlick, 1987; Jain and Ram, 1997]. The reason for this disparity in metal concentrations by size fraction is primarily because finer sediments have greater surface area for adsorption of metals [Horowitz and Ehrlick, 1987]. Therefore, when evaluating weighted mean sample concentrations, samples with higher percentages of fine sediments will generally have higher sample concentrations.

The sample collection method requires that samples are collected and composited from at least five depositional areas, which provides a more representative sample than one collected from a single depositional area [MDEQ, 2012b]. The weighted mean concentrations have been compared to the reference values (TEC and PEC) in this report in order to provide the most representative composite sample concentration for all sediments (<2 mm) at each site. However, for comparisons of sediment metal concentrations through time (or space) it is probably more useful to compare concentrations in the same size fractions to eliminate the confounding influence of varying size fraction proportions among disparate samples. Variance in the proportion of each size fraction within each sample was highly variable between sites and between sample periods even for the same site.

2.5.2 Contaminants of Concern

There appears to be a major source, or sources, of metal contamination to sediments in Butte somewhere between the Blacktail Creek site (SS-01) and the Silver Bow Creek above Butte Reduction Works site (SS-05A). The source may also be relatively localized in the immediate area of the SS-05A sampling site. In 2015, all weighted mean sediment COC concentrations increased sharply (by 5-30 times) between those sites. This sharp increase has been consistently observed since quarterly monitoring began at SS-05A in September 2012[13] [Ingman et al., 2013c; 2013d; 2015b]. Sites SS-01 and SS-05A are approximately three miles apart and each are located upstream from the SSTOU. Therefore, these sample sites provide limited insight into the specific location of the sediment source, or sources, in Butte other than that these source(s) are located somewhere immediately proximal to, or upstream from, SS-05A. Site SS-05A is located immediately downstream (i.e., within 100 yards) from the downstream end of the "Slag Canyon", which is located just downstream from Montana Avenue in Butte.

Downstream from site SS-05A, arsenic, copper, lead, and zinc concentrations generally decreased sequentially at each downstream site through Subarea 1 and 2 (to SS-14; Silver Bow

[13] Prior to September 2012, monitoring occurred at site SS-06A which is located approximately 0.5 miles downstream from site SS-05A. Site SS-06A was discontinued in September 2012 and replaced by site SS-05A because beaver activity made sampling at SS-06A impractical.

Creek at Miles Crossing). This spatial trend may suggest that COCs in sediments upstream from the SSTOU are periodically mobilized and are recontaminating sites in the SSTOU throughout Subarea 1 and 2.

In Subarea 3 and 4, recent remediation appears to be directly influencing COC concentrations. Although all COC concentrations remain elevated at each Subarea 3 and 4 site (excluding the German Gulch site) relative to the reference values, concentrations appear to be decreasing steadily through time. For example, at the Subarea 3 site on Silver Bow Creek immediately upstream from German Gulch (SS-15A), all COC concentrations in the most contaminated size fraction (<0.065 mm) have declined through time at a steady rate. Remediation was recently completed upstream from SS-15A. However, there were some limited tailings in the streambed and streambanks from about 100 yards above to 200 yards below SS-15A which were left to flush out over time. These remnant tailings may account for some continuing elevated COC concentrations in sediments at Silver Bow Creek immediately upstream from German Gulch. No active remediation was planned in that segment because the stream passes through a very narrow canyon (~30 m) and the streambed is comprised primarily of bedrock indicating that the volume of tailings is quite small. During recent monitoring, some erosion of these streambanks immediately upstream from SS-15A was noted. This situation may result in continued elevated COC concentrations in streambed sediments at SS-15A for some time. Despite these circumstances, long-term monitoring appears to clearly demonstrate that remediation upstream has resulted in decreased COC concentrations at SS-15A and other Subarea 3 and 4 sites. We recommend that future sediment sampling at SS-15A include an additional sample collected upstream, above the remnant tailings area, to investigate if the small remaining deposit is influencing the results at the site.

The sediment sample collected at the Silver Bow Creek at Frontage Road site (SS-19) in Q1 had extremely high concentrations of arsenic, cadmium, copper, and zinc. For example, in the finest size fraction (<0.065 mm) in Q1 at SS-19, copper concentration was approximately 10 times higher, cadmium concentration was nearly five times higher, and zinc concentration was a little more than two times higher than any other sample collected in the SSTOU in 2015. This result was not due to analysis or transcription error because the lab reanalyzed this sample and results were similar. We do not know why this sample result was so elevated relative to other samples because remediation was complete at the site in Q1 2015. We will continue to monitor results at SS-19 in the future.

2.5.3 Data Validation

Some DQOs were exceeded for sampling precision. Of the 441 field sample and field duplicate pairs compared, 43 exceeded the specified DQO for sampling precision (RPD >40%). All associated data will be “J” flagged in the project database as described in the quality assurance project plan [Naughton et al., 2014].

3.0 GROUNDWATER

3.1 INTRODUCTION

This chapter describes groundwater monitoring data collected in 2015 to assess the effectiveness of remedial actions implemented within the Streamside Tailings Operable Unit (SSTOU) of the Silver Bow Creek/Butte Area National Priorities List site. Data were collected to evaluate the effects of remedial actions on groundwater quality and progress toward attainment of performance goals. Groundwater contamination is among the environmental concerns for Silver Bow Creek and may pose a threat to human health and the environment. An objective of remediation in the SSTOU is to reduce loading of contaminants from floodplain soils to groundwater and surface water.

3.2 PERFORMANCE GOALS

The SSTOU ROD specifies that the final remediation standards for groundwater COC concentrations are to, "Attain compliance with applicable Circular WQB-7 standards, federal MCLs (maximum contaminant levels) and federal nonzero maximum contaminant level goals (MCLGs) for all SSTOU groundwater." Moreover, "The groundwater levels to be attained consist of the more stringent of the MCL, any nonzero MCLG, or the WQB-7 human health standard for each parameter." While more stringent standards promulgated since the issuance of the ROD have not yet been formally adopted as performance standards for this operable unit, this monitoring report uses the more stringent of the ROD's Circular WQB-7 standards [MDHES, 1994] or current Circular DEQ-7 standards [MDEQ, 2012a] as the goal to be attained for purposes of evaluation. The most stringent of these standards for each COC is shown in Table 3-1. The MDEQ [2012a] human health groundwater standards for non-COC metals are shown in Table 3-2.

Table 3-1. Comparison of the state of Montana groundwater standards in July 1994 (effective at the time of issuance of the Streamside Tailings Operable Unit Record of Decision) and October 2012 (effective in 2014) for each contaminant of concern. Gray cells indicate the most restrictive standard.

Contaminant of concern	Human health groundwater standard	
	MDHES [1994]	MDEQ [2012a]
Arsenic	0.018	0.010
Cadmium	0.00500	0.00500
Copper	1.000	1.300
Lead	0.0150	0.0150
Mercury	0.00014	0.000050
Zinc	5.0	2.0

Table 3-2. Montana groundwater standards for metals which are not contaminants of concern in the Streamside Tailings Operable Unit [MDEQ, 2012a].

Metal	Human health groundwater standard (mg/L)
Aluminum	-
Antimony	0.006
Barium	1
Beryllium	0.004
Boron	-
Chromium	0.1
Cobalt	-
Iron	-
Manganese	-
Molybdenum	-
Nickel	0.1
Selenium	0.05
Silver	0.1
Uranium	0.03
Vanadium	-

3.3 METHODS

The purpose of the groundwater monitoring program is to collect data describing the temporal and spatial variation of metal and ion concentrations for groundwater in the SSTOU. These data provide a long-term record of environmental conditions in the SSTOU. As of 2015, 14 years of SSTOU groundwater data (2002-2015) have been collected under this monitoring program. This long-term record provides data to evaluate the effects of remediation on environmental conditions in the SSTOU over time. Improvement to groundwater quality may require long time periods (i.e., decades) following completion of remediation within the SSTOU.

Changes to the groundwater monitoring program have occurred over time and a record of these changes is provided in the program sampling and analysis plan [Naughton et al., 2015a]. The program attempts to adhere to monitoring requirements specified in the SSTOU ROD [Table 3-3].

Table 3-3. Minimum post-remedy monitoring requirements specified in the Record of Decision for the Streamside Tailings Operable Unit [MDEQ and USEPA, 1995].

Locations/Physical	Analytical Parameters	Analytes
Near Colorado Tailings, Rocker, Silver Bow, Nissler, Ramsay Flats, Miles Crossing, Fairmont, Crackerville, Stuart, Opportunity, STARS *in situ* treatment areas and every repository location.	Metals (dissolved)	Arsenic, cadmium, copper, lead, mercury, zinc
	Common ions	Calcium, magnesium, sodium, potassium, chloride, sulfate
	Physical properties	Temperature, acidity (pH), oxidation-reduction potential (Eh), conductance, dissolved oxygen concentration

3.3.1 Monitoring Locations

In 2015, major remediation in the SSTOU was complete in all subareas [Figure 3-1; Table 3-4]. Monitoring occurred in nine well cluster areas within the SSTOU. Each well cluster consisted of three wells; two monitoring wells located within the stream floodplain and one background well located outside the floodplain and adjacent to the monitoring wells. The Mine Waste Relocation Repository (MWRR) well cluster is located outside the floodplain at a site where approximately 171,900 cubic yards of contaminated soil from Reach A of Subarea 1 were deposited [USEPA, 2011]. The MWRR site consists of five monitoring wells and one background well located up-gradient from the MWRR. Well cluster locations were selected based on SSTOU ROD requirements [Table 3-3].

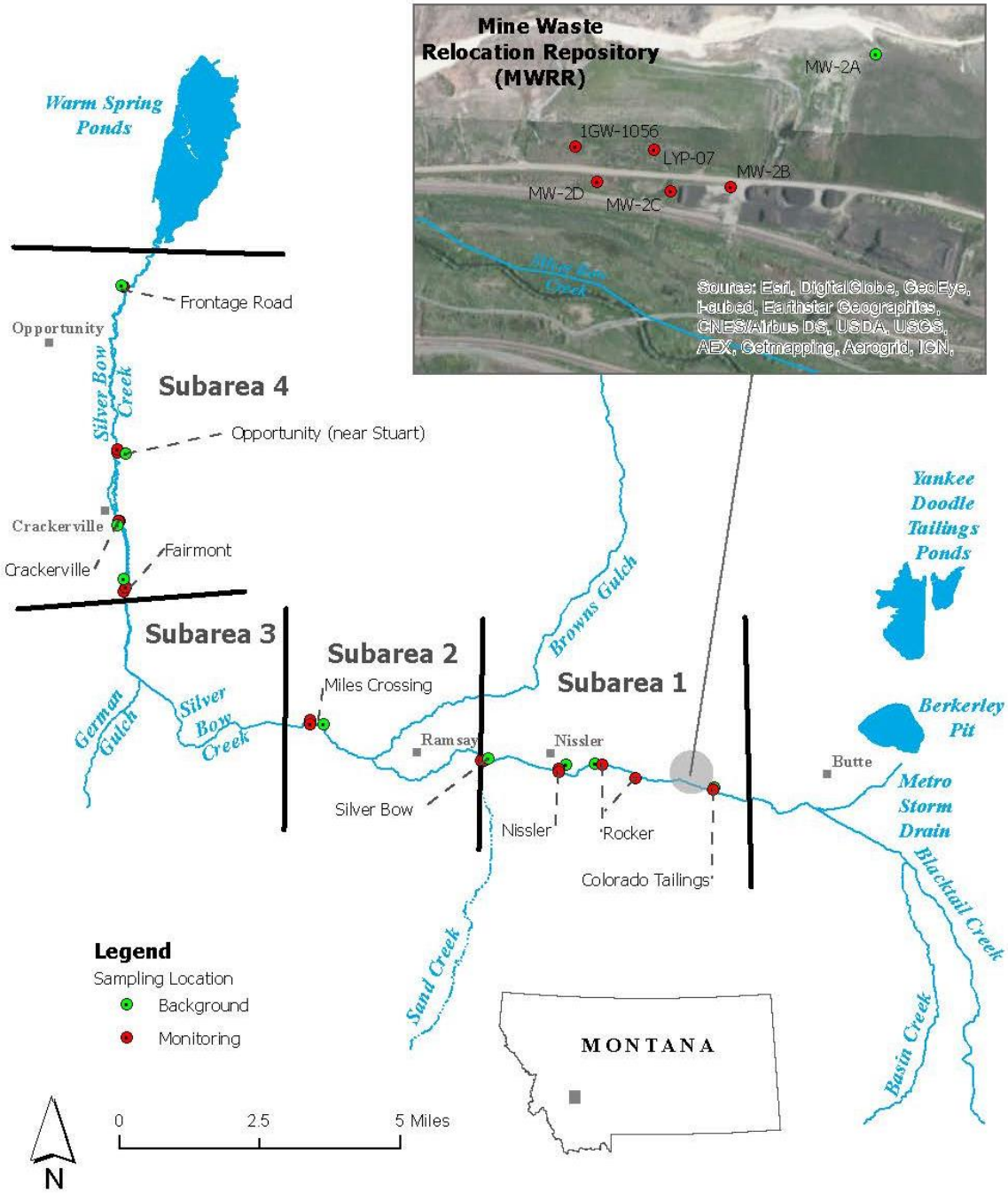

Figure 3-1. Sampling locations for groundwater monitoring in the Streamside Tailings Operable Unit, 2015.

Table 3-4. Sampling locations for groundwater monitoring in the Streamside Tailings Operable Unit, 2015.

Well Cluster	Well ID	Well Purpose	Location (GPS coordinates, NAD 83)	
			Latitude	Longitude
Colorado Tailings	GW-1010R	Background	45.99979	-112.57561
	P-06A	Floodplain	45.99940	-112.57622
	GW-1052R	Floodplain	45.99916	-112.57624
Rocker	GW-RK-BG	Background	46.00483	-112.62020
	MW-10	Floodplain	46.00447	-112.61734
	MW-01	Floodplain	46.00155	-112.60496
Nissler	GW-1003R	Background	46.00405	-112.63095
	1GW-1004A	Floodplain	46.00307	-112.63343
	P-58A	Floodplain	46.00211	-112.63355
Silver Bow	P-39R	Floodplain	46.00440	-112.66235
	P-37A	Floodplain	46.00449	-112.66112
	P-114	Background	46.00508	-112.65941
Miles Crossing	GW-MC-NS	Floodplain	46.01300	-112.72600
	GW-MC-SS	Floodplain	46.01200	-112.72600
	GW-MC-BG	Background	46.01200	-112.72100
Mine Waste Relocation Repository (MWRR)	1GW-1056	Monitoring	46.00263	-112.58615
	LYP-07	Monitoring	46.00264	-112.58483
	MW-2A	Background	46.00386	-112.58114
	MW-2B	Monitoring	46.00223	-112.58350
	MW-2C	Monitoring	46.00215	-112.58451
	MW-2D	Monitoring	46.00223	-112.58577
Fairmont	GW-FM-ES	Floodplain	46.04400	-112.79692
	GW-FM-WS	Floodplain	46.04510	-112.79601
	GW-FM-BG	Background	46.04711	-112.79700
Crackerville	GW-CR-ES	Floodplain	46.06211	-112.79942
	GW-CR-WS	Floodplain	46.06196	-112.79980
	GW-CR-BG	Background	46.06112	-112.79994
Stuart	GW-ST-ES	Floodplain	46.07975	-112.80107
	GW-ST-WS	Floodplain	46.08053	-112.80146
	GW-ST-BG	Background	46.07939	-112.79810
Frontage Road	GW-FR-ES	Floodplain	46.12223	-112.80167
	GW-FR-WS	Floodplain	46.12250	-112.80225
	GW-FR-BG	Background	46.12263	-112.80268

3.3.2 Monitoring Schedule

Groundwater was monitored during low streamflow periods at all wells from September 15-17, 2015 to describe spatial variation in shallow groundwater chemistry within the SSTOU. At the MWRR well cluster, monitoring also occurred on May 7, 2015 during the spring snowmelt runoff period.

3.3.3 Monitoring Parameters

Groundwater samples were analyzed for the parameters and analytes listed in Table 3-5.

Table 3-5. Sampling parameters and analytes for groundwater monitoring of the Streamside Tailings Operable Unit, 2015.

Parameter	Analytes
Concentrations of metal contaminants of concern (dissolved)	Arsenic, cadmium, copper, lead, mercury, zinc
Concentrations of other metals (dissolved)	Aluminum, antimony, barium, beryllium, boron, cobalt, chromium, iron, manganese, molybdenum, nickel, selenium, uranium, vanadium
Common ion concentrations	Sulfate, total alkalinity, bicarbonate alkalinity, calcium, magnesium, sodium, potassium, chloride, hardness
Other physical properties	Water temperature, pH, specific conductivity

3.3.4 Sample Collection and Analysis

Sample collection and analysis procedures are described in the project sampling and analysis plan (SAP) [Naughton et al., 2015a] and quality assurance and quality control procedures are described in the program quality assurance project plan (QAPP) [Naughton et al., 2014]. Sample collection methods generally followed standard operating procedures (SOPs) developed for the Clark Fork River [AR, 1992]. Field sampling procedures were in accordance with MDEQ [2012b] and followed "clean hands/dirty hands" procedures as described in USGS [2006]. Dedicated, or disposable, well bailers were used in low yield wells where installation of a submersible pump was impractical. Field parameters (water temperature, pH, dissolved oxygen concentration, and conductivity) were measured during each monitoring event with a field multimeter (YSI Professional Plus). Dissolved metal samples were filtered in the laboratory rather than in the field because some wells had high levels of suspended sediment which made field filtering impractical. Samples were analyzed by Energy Laboratories (Helena, Montana). Laboratory analysis procedures for each analyte are presented in Table 3-6.

Table 3-6. Analytes, methods, and reporting limits for groundwater sampling in the Streamside Tailings Operable Unit, 2015.

Analyte	Requested Method	Requested Reporting Limit (mg/L)[14]	Holding Time (days)	Bottle	Preservative
Water Samples - Physical Properties and Inorganics					
Alkalinity, Total (as CaCO3)	A 2320 B	4	14		
Alkalinity, Bicarbonate (as HCO3)	A 2320 B	4	14		
Chloride	EPA 300.0	1	7		
Sulfate	EPA 300.0	1	7		
Hardness (as CaCO3)	A 2340 B	1	180		
Water Samples - Dissolved Metals (0.45 µm filtered)					
Aluminum	EPA 200.8	0.009	180	250 mL HDPE	HNO3 to pH <2
Antimony	EPA 200.8	0.0005			
Arsenic	EPA 200.8	0.001			
Barium	EPA 200.8	0.003			
Beryllium	EPA 200.8	0.0008			
Boron	EPA 200.7	0.1			
Cadmium	EPA 200.8	0.00003			
Calcium	EPA 200.7	1			
Chromium	EPA 200.8	0.01			
Cobalt	EPA 200.8	0.01			
Copper	EPA 200.8	0.001			
Iron	EPA 200.7	0.02			
Lead	EPA 200.8	0.0003			
Magnesium	EPA 200.7	1			
Manganese	EPA 200.8	0.001			
Mercury	EPA 245.1	0.000005			
Molybdenum	EPA 200.8	0.005			
Nickel	EPA 200.8	0.002			
Potassium	EPA 200.7	1			
Selenium	EPA 200.8	0.001			
Silver	EPA 200.8	0.0002			
Sodium	EPA 200.7	1			
Uranium	EPA 200.8	0.0002			
Vanadium	EPA 200.8	0.1			
Zinc	EPA 200.8	0.008			

3.3.5 Data Analysis

3.3.5.1 Metal Contaminants of Concern

For each sample, the concentration for each metal COC in 2015 was compared to the state of Montana groundwater standards [Table 3-1]. Additionally, to provide the temporal trend for each COC concentration in each well, all COC concentrations throughout the monitoring period of record were plotted through time[15]. In each well cluster, COC concentrations were grouped

[14] Requested reporting limits are either the required reporting limit of MDEQ [2012a] or the lowest reporting limit previously provided by the analytical laboratory, whichever is lower.

[15] Groundwater monitoring methods and data from prior years may be found in Confluence [2007; 2008; 2009, 2010], DeArment et al. [2011; 2013] and Naughton et al. [2013; 2015b].

according to the well purpose (i.e., background or monitoring) and narrative discussions are focused on the comparison of conditions in the background wells to those observed in the monitoring wells in each cluster.

3.3.5.2 Other Metals and Common Ions

Concentrations of non-COC metals and common ions from 2015 were tabulated. For those metals with MDEQ [2012a] groundwater standards, the 2015 samples are compared to those standards.

3.3.6 Data Validation

Data quality objectives (DQOs) were established in the SSTOU monitoring project QAPP for "data representativeness", "comparability", "completeness", "sensitivity", "precision", "bias", and "accuracy" [Naughton et al., 2014]. Methods for field and laboratory quality assurance and quality control (QA/QC) procedures are also described in detail in the project QAPP [Naughton et al., 2014]. A completed QA/QC checklist, summary tables of field duplicate and field blank results, and assessments of data quality objectives are included in Appendix A.

3.4 RESULTS

3.4.1 Mine Waste Relocation Repository

3.4.1.1 Contaminants of Concern

In May 2015, no MWRR monitoring wells had samples with metal COC concentrations which exceeded the MDEQ [2012a] groundwater standard [Table 3-7]. However, the background well (MW-2A) had an arsenic concentration which was 1.1 times the standard [Table 3-7]. In September 2015, no background or monitoring wells in the MWRR cluster had a COC concentration exceeding any MDEQ [2012a] groundwater standard [Table 3-7].

Table 3-7. Dissolved metal (contaminant of concern) concentrations (mg/L) in groundwater monitoring wells of the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2015.

Site	Arsenic	Cadmium	Copper	Lead	Mercury	Zinc
May						
MW-2A*	0.011	ND	ND	ND	0.000007	ND
1GW-1056	0.007	ND	ND	ND	0.000007	ND
LYP-07	0.001	ND	ND	ND	ND	0.014
MW-2B	0.010	ND	0.001	ND	0.000005	ND
MW-2C	0.006	ND	ND	ND	0.000005	ND
MW-2D	0.008	ND	ND	ND	0.000012	ND
September						
MW-2A*	0.010	ND	0.002	ND	ND	ND
1GW-1056	0.008	ND	ND	ND	ND	0.029
LYP-07	0.010	ND	ND	ND	ND	ND
MW-2B	0.006	ND	ND	ND	ND	ND
MW-2C	0.002	ND	ND	ND	ND	0.024
MW-2D	0.006	ND	ND	ND	ND	ND

ND Not detected at analytical reporting limit.

* Background well.

Exceeds human health groundwater standard [MDEQ, 2012a].

3.4.1.1.1 Arsenic

Based on the monitoring period of record in the MWRR, arsenic concentrations have been generally consistent at each well since monitoring began in 2006 [Figure 3-2]. All monitoring wells have had arsenic concentrations which were less than or similar to the background well concentration throughout the period of record [Figure 3-2]. There does not appear to be an increasing trend at any well with the exception of MW-2B and possibly 1GW-1056 [Figure 3-2]. Well MW-2B does appear to have a slightly increasing trend through time, although concentrations in MW-2B have not exceeded the concentrations in the background well during any sample period [Figure 3-2]. Similarly, there may be an increasing trend in well 1GW-1056 since approximately 2013; however, no arsenic concentrations in well 1GW-1056 have exceeded those in the background well during any sample period [Figure 3-2].

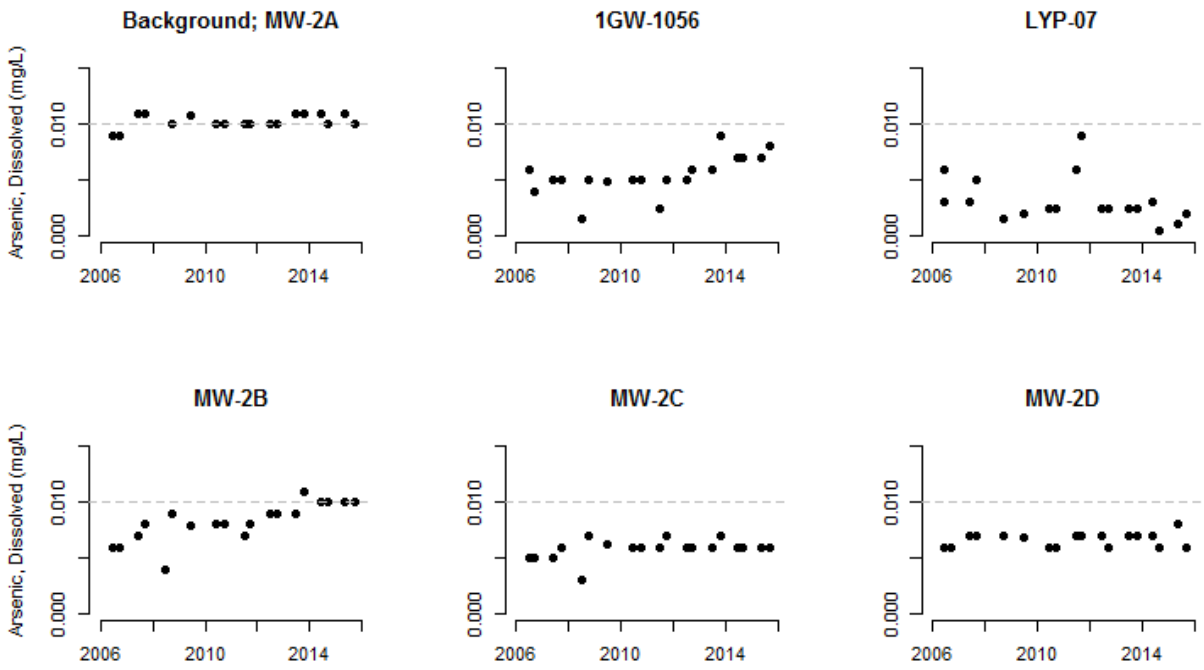

Figure 3-2. Arsenic concentrations in groundwater wells in the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Samples below the analytical reporting limit (RL) are represented as half the RL.

3.4.1.1.2 Cadmium

Based on the monitoring period of record in the MWRR, all samples had cadmium concentrations which were well below the most restrictive groundwater standard [Figure 3-3]. There is no indication that cadmium concentrations are increasing through time in any of the MWRR wells [Figure 3-3].

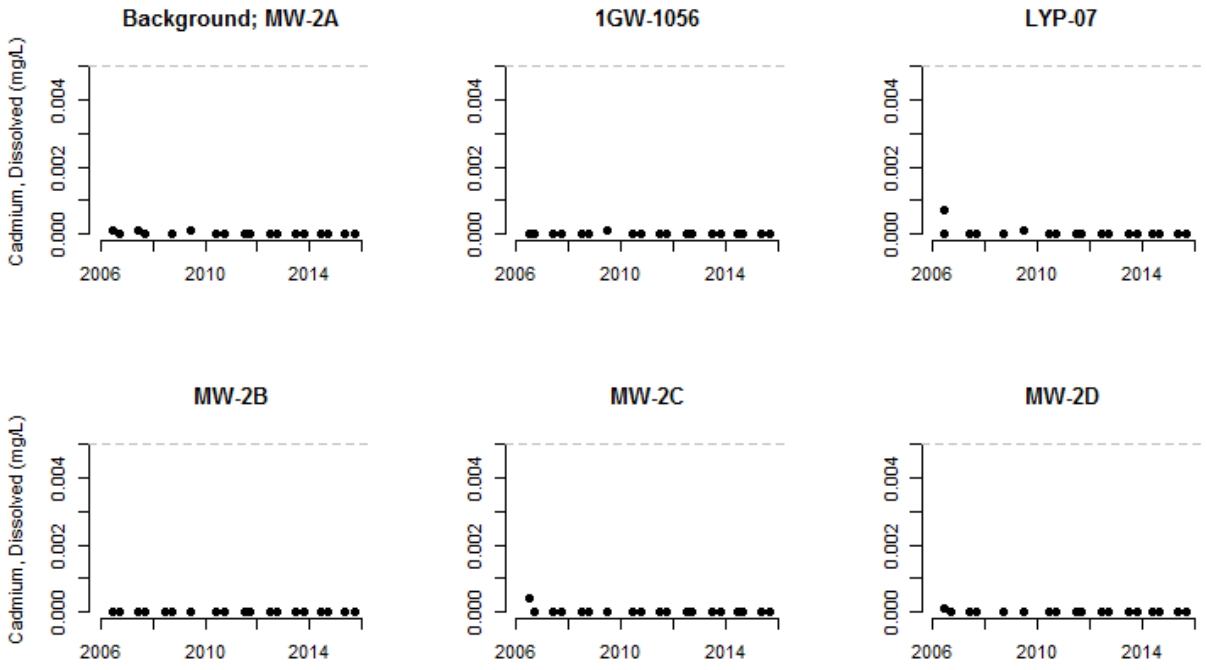

Figure 3-3. Cadmium concentrations in groundwater wells in the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2006-2014. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Samples below the analytical reporting limit (RL) are represented as half the RL.

3.4.1.1.3 Copper

Based on the monitoring period of record in the MWRR, all samples had copper concentrations which were well below the most restrictive groundwater standard [Figure 3-4]. There is no indication that copper concentrations are increasing through time in any of the MWRR wells [Figure 3-4].

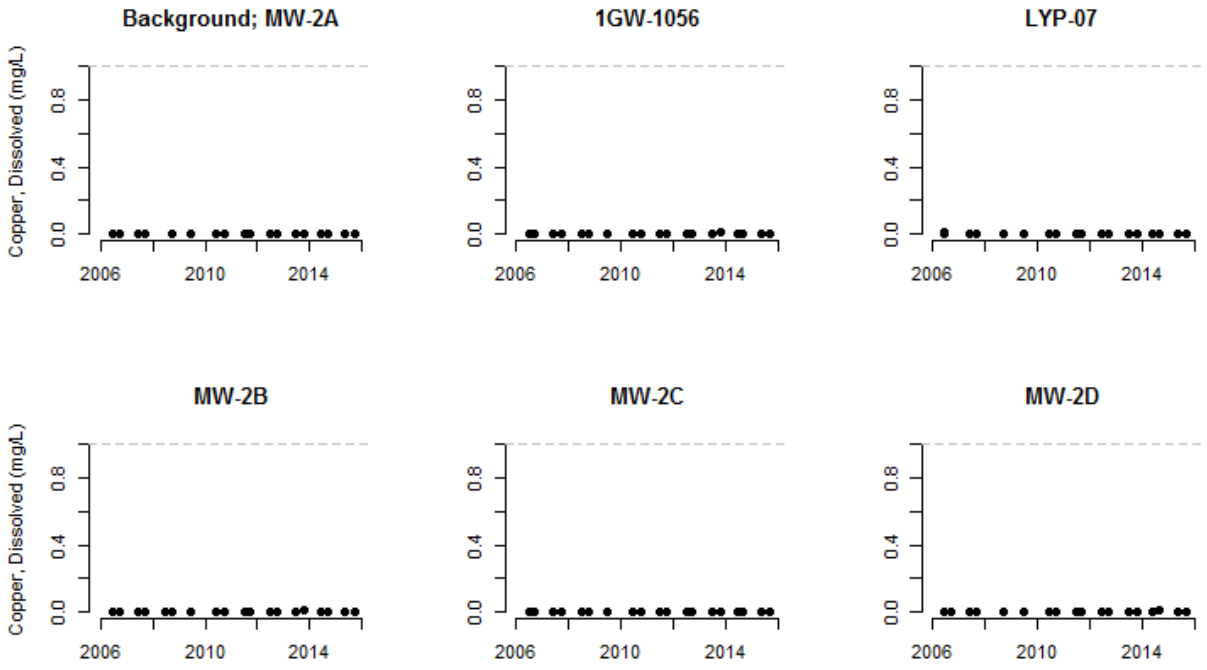

Figure 3-4. Copper concentrations in groundwater wells in the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2006-2014. Gray dashed line represents the human health groundwater standard [MDHES, 1994]. Samples below the analytical reporting limit (RL) are represented as half the RL.

3.4.1.1.4 Lead

Based on the monitoring period of record in the MWRR, all lead concentrations were well below the most restrictive groundwater standard [Figure 3-5]. There is no indication that lead concentrations are increasing in any monitoring wells [Figure 3-5].

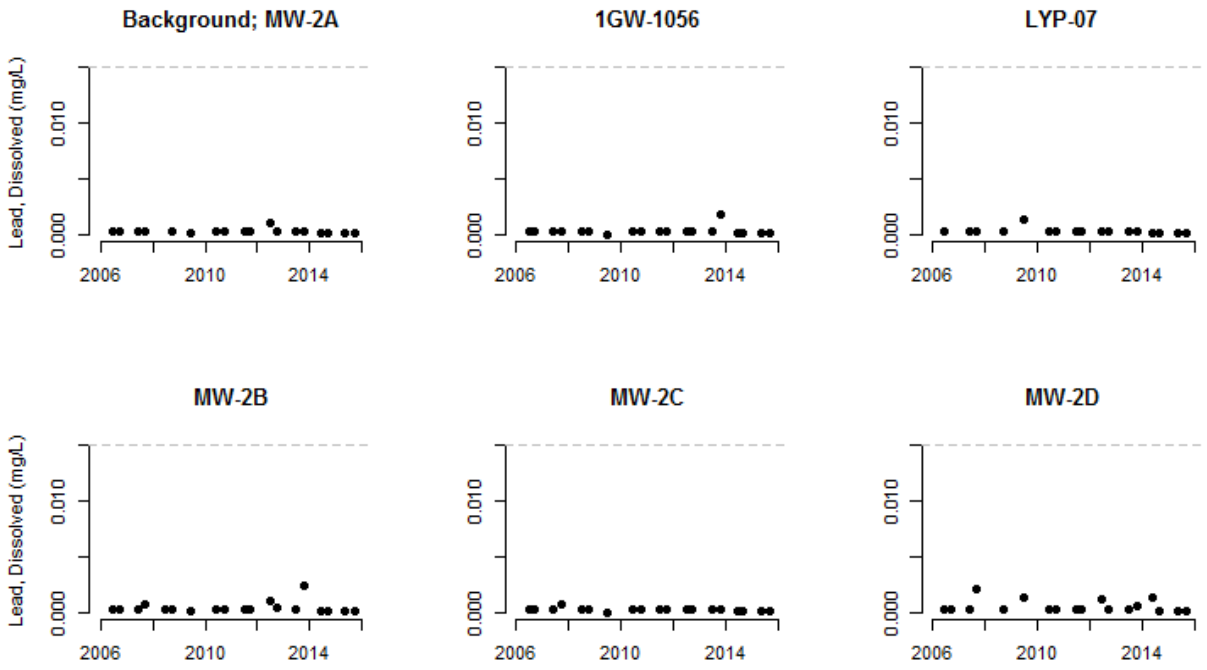

Figure 3-5. Lead concentrations in groundwater wells in the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2006-2014. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Samples below the analytical reporting limit (RL) are represented as half the RL.

3.4.1.1.5 Mercury

Based on the monitoring period of record in the MWRR, all mercury concentrations were near or below the analytical reporting limit during all sample periods [Figure 3-6]. There is no indication that mercury concentrations are increasing in any monitoring wells [Figure 3-6]. Nearly all variance among samples in Figure 3-6 is due to variance in the reporting limit.

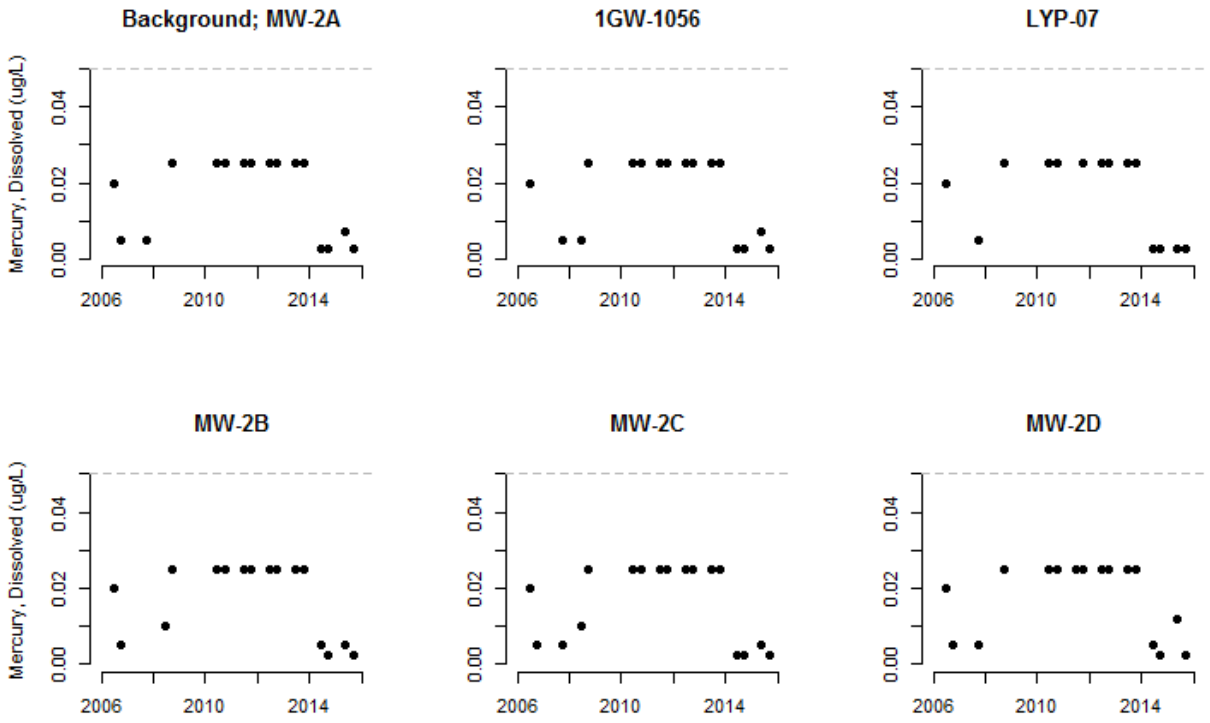

Figure 3-6. Mercury concentrations in groundwater wells in the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2006-2014. Gray dashed line represents the human health groundwater standard [MDHES, 1994]. Samples below the analytical reporting limit (RL) are represented as half the RL.

3.4.1.1.6 Zinc

Based on the monitoring period of record in the MWRR, all zinc concentrations were well below the most restrictive groundwater standard [Figure 3-7]. There is no indication that zinc concentrations are increasing in any monitoring wells [Figure 3-7].

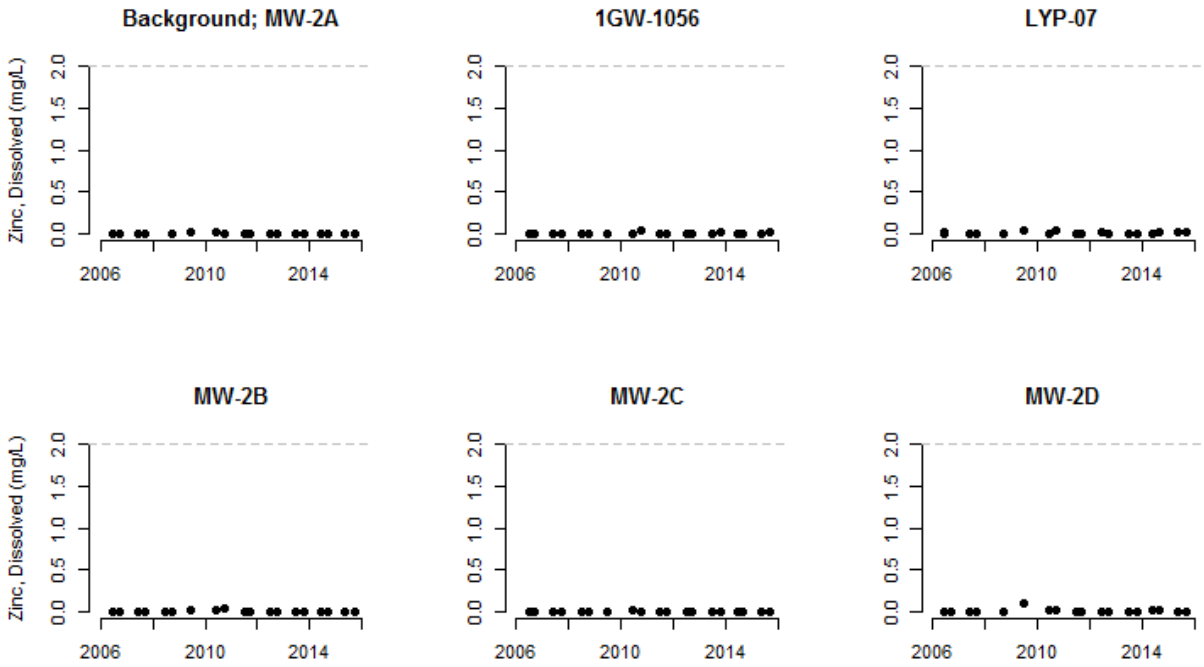

Figure 3-7. Zinc concentrations in groundwater wells in the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2006-2014. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Samples below the analytical reporting limit (RL) are represented as half the RL.

3.4.1.2 Other Metals

In the MWRR in 2015, uranium concentrations exceeded the MDEQ [2012a] standard in the background well (MW-2A) and in three monitoring wells (1GW-1056, LYP-07, MW-2C, and MW-2D) in May and September [Table 3-8]. No other non-COC metals exceeded MDEQ [2012a] standards in the MWRR in 2015.

Table 3-8. Dissolved metal (non-contaminant of concern) concentrations (mg/L) in groundwater monitoring wells of the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2015[16].

Site	Al	Sb	Ba	Be	B	Cr	Co	Fe	Mn	Mb	Ni	Se	Ag	U	V
May															
MW-2A*	ND	ND	0.014	ND	ND	ND	ND	ND	ND	0.009	ND	0.010	ND	0.0426	ND
1GW-1056	ND	ND	0.030	ND	ND	ND	ND	ND	ND	0.005	ND	0.004	ND	0.0315	ND
LYP-07	0.014	0.0005	0.055	ND	ND	ND	ND	0.11	0.062	0.010	0.004	0.002	ND	0.0550	ND
MW-2B	0.068	ND	0.033	ND	ND	ND	ND	0.05	0.012	ND	ND	0.002	ND	0.0048	ND
MW-2C	ND	ND	0.020	ND	ND	ND	ND	0.12	ND	ND	ND	0.002	ND	0.0088	ND
MW-2D	0.034	0.0010	0.041	ND	ND	ND	ND	0.03	0.001	0.005	ND	0.004	0.0003	0.0565	ND
September															
MW-2A*	ND	ND	0.032	ND	ND	ND	ND	0.06	0.002	ND	ND	0.002	ND	0.0050	ND
1GW-1056	ND	ND	0.032	ND	ND	ND	ND	ND	ND	0.008	ND	0.005	ND	0.0353	ND
LYP-07	ND	ND	0.013	ND	ND	ND	ND	ND	ND	0.008	ND	0.011	ND	0.0418	ND
MW-2B	ND	ND	0.020	ND	ND	ND	ND	ND	ND	ND	ND	0.002	ND	0.0088	ND
MW-2C	ND	0.0006	0.057	ND	ND	ND	ND	0.06	0.062	0.008	0.004	0.003	ND	0.0573	ND
MW-2D	ND	ND	0.044	ND	ND	ND	ND	ND	ND	0.005	ND	0.005	ND	0.0521	ND

ND Not detected at analytical reporting limit.

* Background well.

Exceeds human health groundwater standard [MDEQ, 2012a].

[16] Metal abbreviations: Al = aluminum, Sb = antimony, Ba = barium, Be = beryllium, B = boron, Cr = chromium, Co = cobalt, Fe = iron, Mn = manganese, Mb = molybdenum, Ni = nickel, Se = selenium, Ag = silver, U = uranium, and V = vanadium.

3.4.1.3 Common Ions

Common ion concentrations in the MWRR wells are presented in Table 3-9.

Table 3-9. Common ion concentrations (mg/L) in groundwater wells located of the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2015.

Site	Alkalinity (as CaCO3)	Bicarbonate Alkalinity (as HCO3)	Calcium	Chloride	Hardness (as CaCO3)	Magnesium	Potassium	Sodium	Sulfate
May									
MW-2A*	120	150	86	4	270	13	3	26	215
1GW-1056	120	140	72	18	242	15	3	27	175
LYP-07	170	200	78	21	258	15	4	31	138
MW-2B	82	99	57	21	203	15	3	23	141
MW-2C	100	130	67	22	230	15	3	32	171
MW-2D	150	190	90	24	308	20	4	28	197
September									
MW-2A*	130	150	89	4	275	13	4	27	205
1GW-1056	120	150	77	18	257	16	4	29	184
LYP-07	180	220	85	24	276	16	5	34	155
MW-2B	95	120	62	21	218	15	4	25	134
MW-2C	110	130	69	23	235	15	3	32	165
MW-2D	160	190	93	25	314	20	4	29	194

* Background well.

3.4.2 Floodplain

3.4.2.1 Contaminants of Concern

In the Silver Bow Creek floodplain monitoring wells in 2015, four of six COCs had concentrations exceeding the most restrictive human health groundwater standard of MDHES [1994] or MDEQ [2012a] in at least one well [Table 3-10]. Four samples exceeded the arsenic standard but three of those were from background wells [Table 3-10]. Six samples from four different well clusters exceeded the cadmium standard and all of those samples were from non-background wells [Table 3-10]. One sample from a monitoring well in the Stuart cluster exceeded the copper standard. Seven samples (all from non-background wells) in four well clusters exceeded the zinc standard [Table 3-10].

Table 3-10. Dissolved metal (contaminant of concern) concentrations (mg/L) in groundwater monitoring wells located along Silver Bow Creek in the Streamside Tailings Operable Unit, September 2015.

Cluster	Site	Arsenic	Cadmium	Copper	Lead	Mercury	Zinc
Colorado Tailings	GW-1010R*	0.002	ND	ND	ND	ND	ND
	GW-1052R	0.005	0.00278	0.181	ND	ND	1.710
	P-06A	0.002	0.00084	0.031	0.0005	0.000007	0.155
Rocker	GW-RK-BG*	0.006	ND	ND	ND	ND	ND
	MW-01	0.008	0.00068	0.050	ND	ND	0.087
	MW-10	0.004	0.00322	0.042	ND	ND	3.570
Nissler	GW-1003R*	0.011	ND	0.001	ND	ND	ND
	1GW-1004A	ND	0.00228	0.045	0.0108	ND	8.170
	P-58A	ND	0.00600	0.203	ND	ND	4.960
Silver Bow	P-114*	0.003	0.00004	0.003	ND	0.000015	ND
	P-37A	0.001	0.00344	0.053	ND	0.000022	0.158
	P-39R	0.011	0.00017	0.037	ND	ND	0.012
Miles Crossing	GW-MC-BG*	0.034	ND	ND	ND	ND	ND
	GW-MC-NS	0.002	0.02790	0.196	ND	0.000007	8.280
	GW-MC-SS	0.001	0.00796	0.028	ND	0.000016	3.620
Fairmont	GW-FM-BG*	0.002	0.00041	ND	ND	ND	ND
	GW-FM-ES	0.002	0.00021	0.002	ND	ND	0.263
	GW-FM-WS	0.002	ND	0.002	ND	ND	0.037
Crackerville	GW-CR-BG*	0.037	0.00003	0.003	ND	0.000006	ND
	GW-CR-ES	ND	0.00201	0.003	ND	ND	0.439
	GW-CR-WS	0.008	0.01960	0.019	ND	ND	0.214
Stuart	GW-ST-BG*	0.002	0.00126	0.002	ND	ND	0.750
	GW-ST-ES	ND	0.02180	1.200	0.0012	ND	3.230
	GW-ST-WS	0.002	0.02410	0.133	ND	ND	3.850
Frontage Road	GW-FR-BG*	0.008	0.00004	0.002	ND	ND	ND
	GW-FR-ES	0.002	0.00012	0.001	ND	ND	ND
	GW-FR-WS	0.006	0.00005	0.002	ND	ND	ND

ND Not detected at analytical reporting limit.

* Background well.

Exceeds the most restrictive human health groundwater standard from MDHES [1994] or MDEQ [2012a].

3.4.2.1.1 Arsenic

Based on the monitoring period of record in the Silver Bow Creek floodplain, arsenic concentrations in all Subarea 1 floodplain monitoring wells were similar to the concentrations in the background well during all monitoring periods with the exception of one well (MW-01) which had one elevated sample in 2014 [Figure 3-8]. In Subarea 2, arsenic concentrations appear to have been slightly higher in both monitoring wells of the Silver Bow cluster, particularly in P-39R [Figure 3-9]. In the Miles Crossing cluster (Subarea 2), the background well (GW-MC-BG) has consistently had the highest concentrations of any well in the SSTOU monitoring network [Figure 3-2; Figure 3-8; Figure 3-9; Figure 3-10]. Subarea 4 monitoring wells all had arsenic concentrations which were similar to or lower than concentrations in the background wells [Figure 3-10].

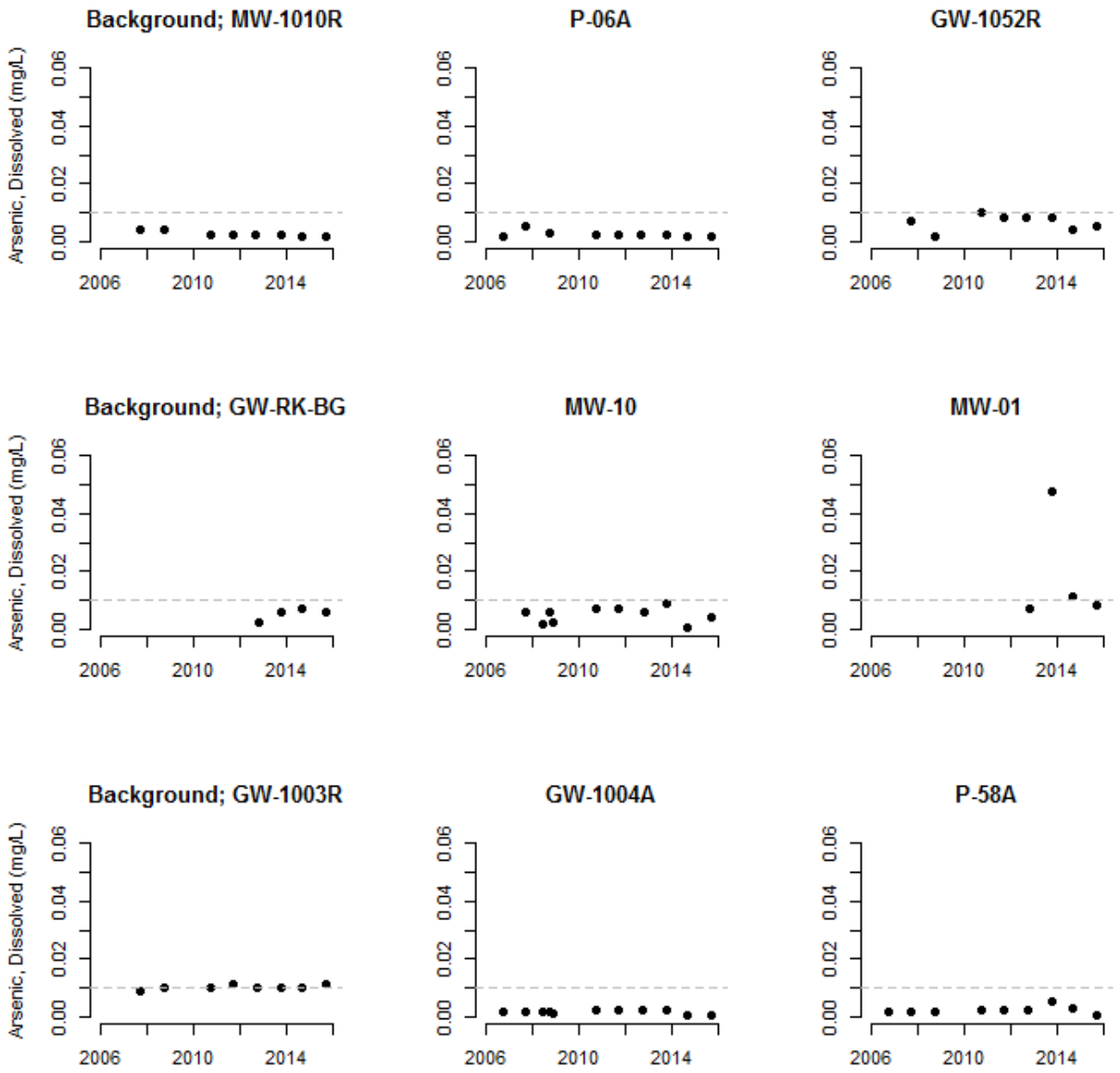

Figure 3-8. Arsenic concentrations in groundwater wells located in Subarea 1 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Each row of plots represents a well cluster: Colorado Tailings cluster (upper row), Rocker cluster (middle row), and Nissler cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

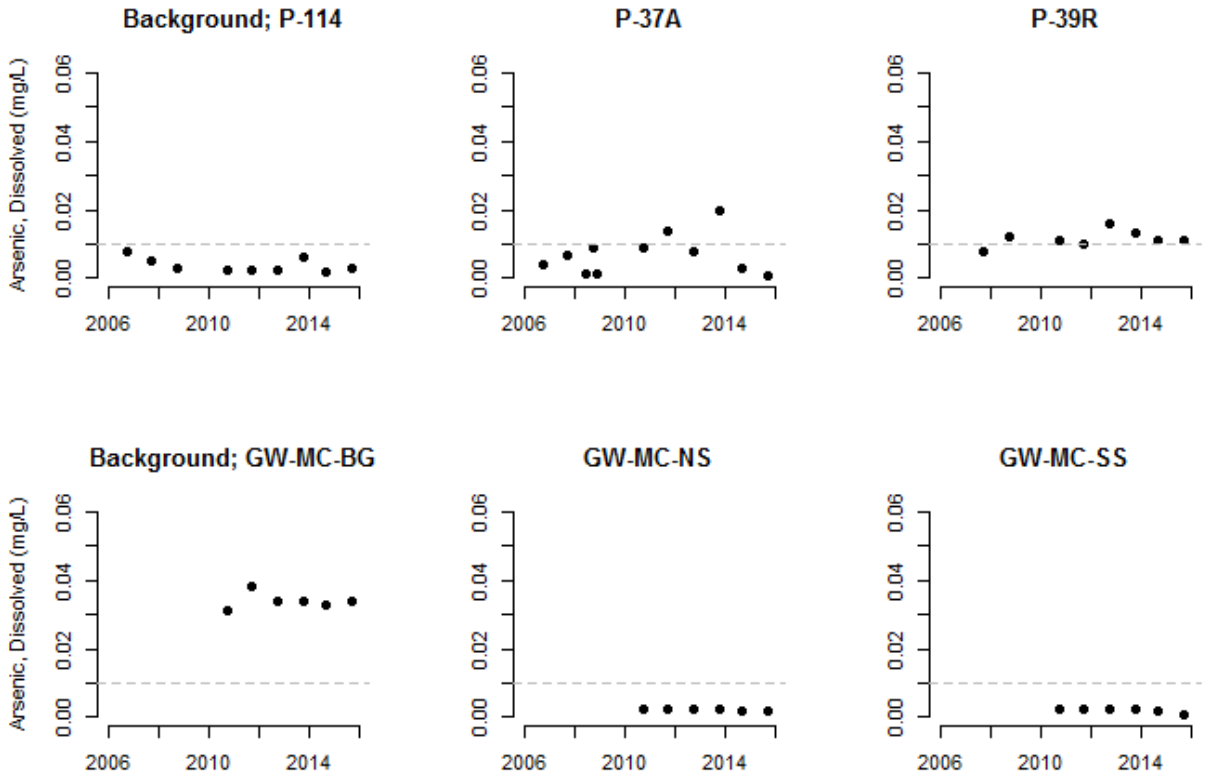

Figure 3-9. Arsenic concentrations in groundwater wells located in Subarea 2 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Each row of plots represents a well cluster: Silver Bow cluster (upper row) and Miles Crossing cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

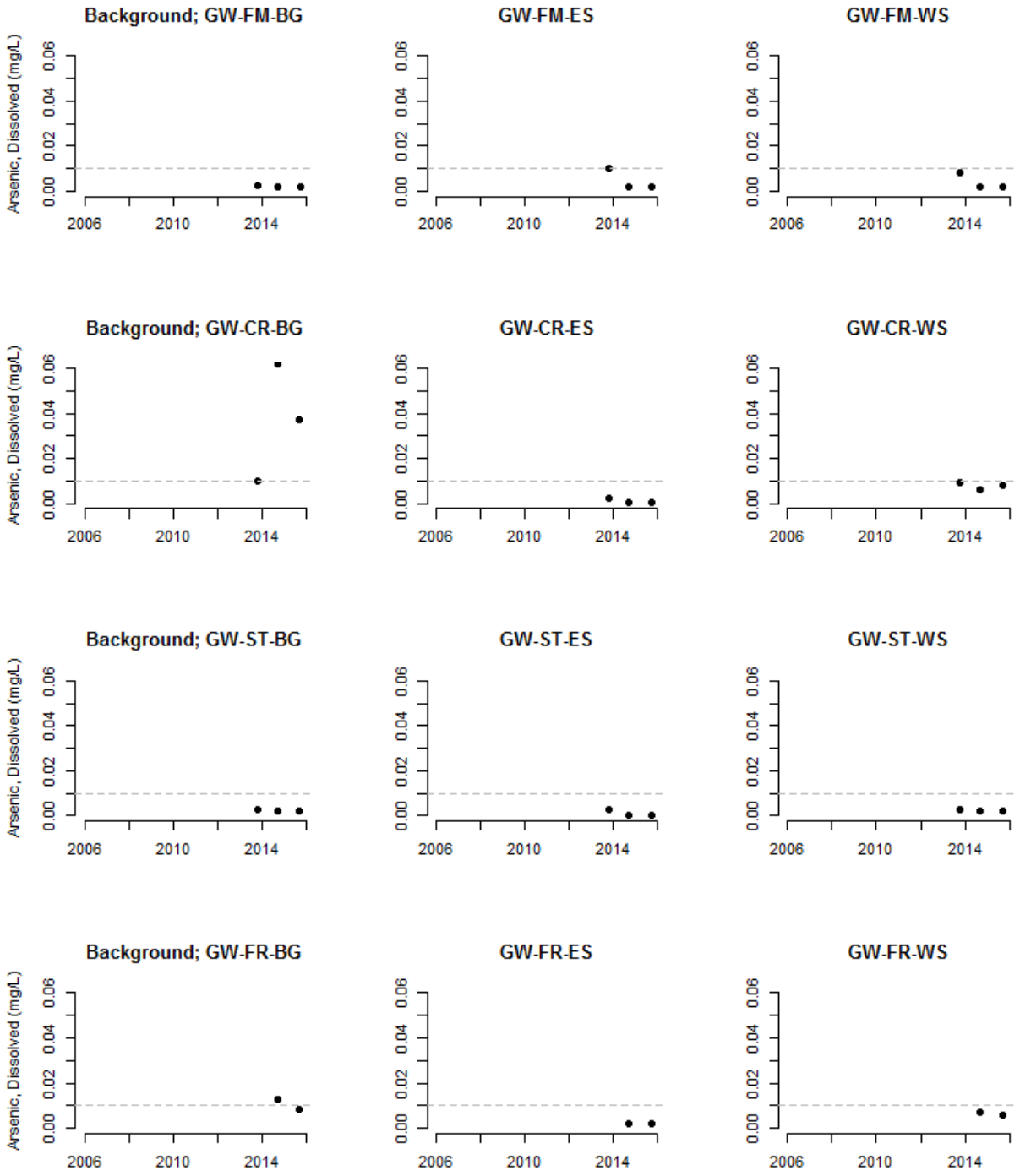

Figure 3-10. Arsenic concentrations in groundwater wells located in Subarea 4 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Each row of plots represents a well cluster: Fairmont cluster (upper row), Crackerville cluster (upper middle row), Stuart cluster (lower middle row), and Frontage Road cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

3.4.2.1.2 Cadmium

Based on the monitoring period of record in the Silver Bow Creek floodplain, cadmium concentrations in all Subarea 1 floodplain monitoring wells were similar to the concentrations in the background well during all monitoring periods with the exception of one sample from monitoring well GW-1052R in 2009 [Figure 3-11]. In Subarea 2, cadmium concentrations have been elevated relative to the background well in two monitoring wells: P-37A (Silver Bow cluster) and GW-MC-NS (Miles Crossing cluster) [Figure 3-12]. However, all samples from P-37A since 2013 have been relatively low compared to the 2006-2012 period [Figure 3-12]. In Subarea 4, both monitoring wells located in the Stuart cluster and one monitoring well in the Crackerville cluster have had elevated concentrations relative to the background wells [Figure 3-13].

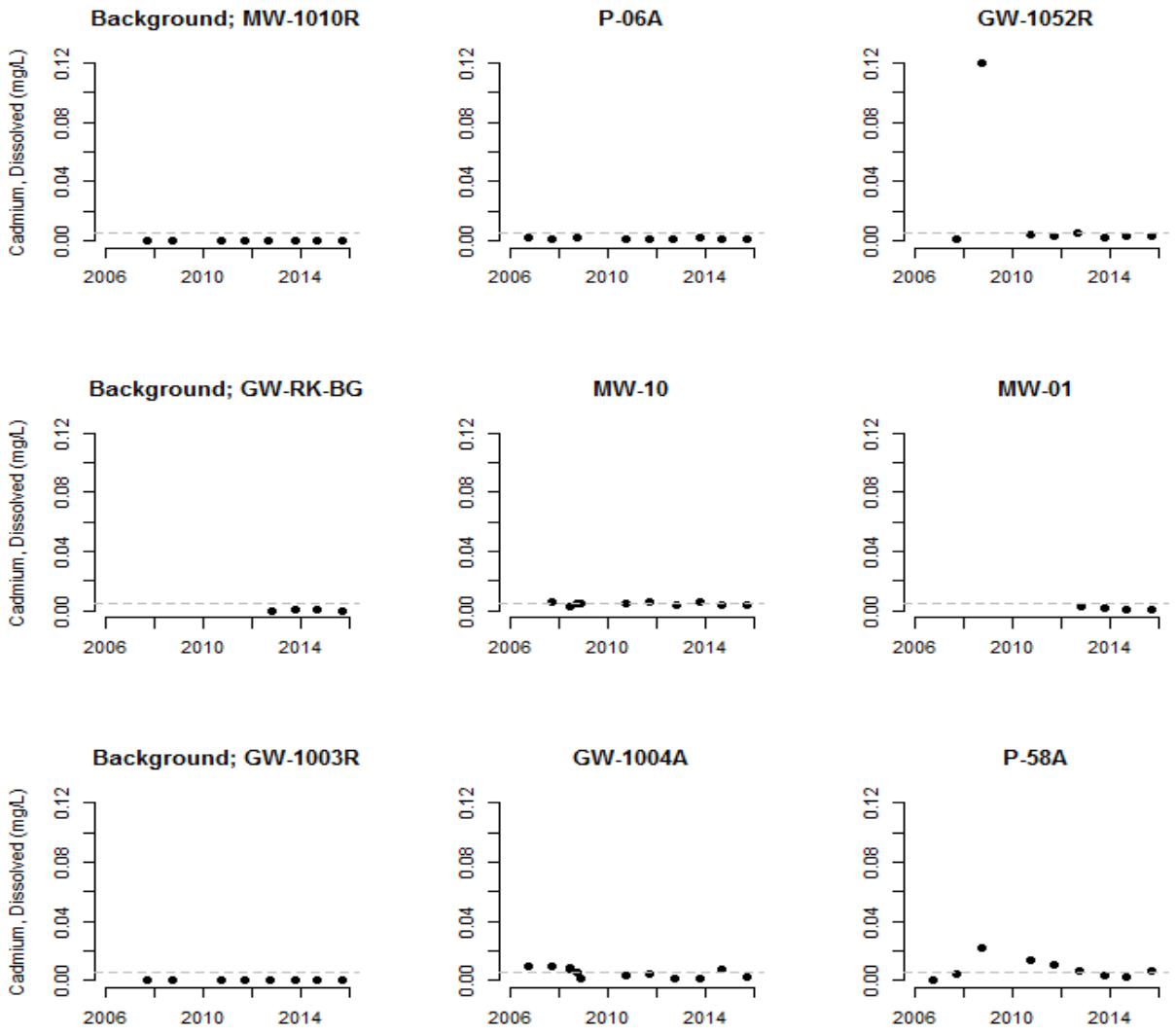

Figure 3-11. Cadmium concentrations in groundwater wells located in Subarea 1 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Each row of plots represents a well cluster: Colorado Tailings cluster (upper row), Rocker cluster (middle row), and Nissler cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

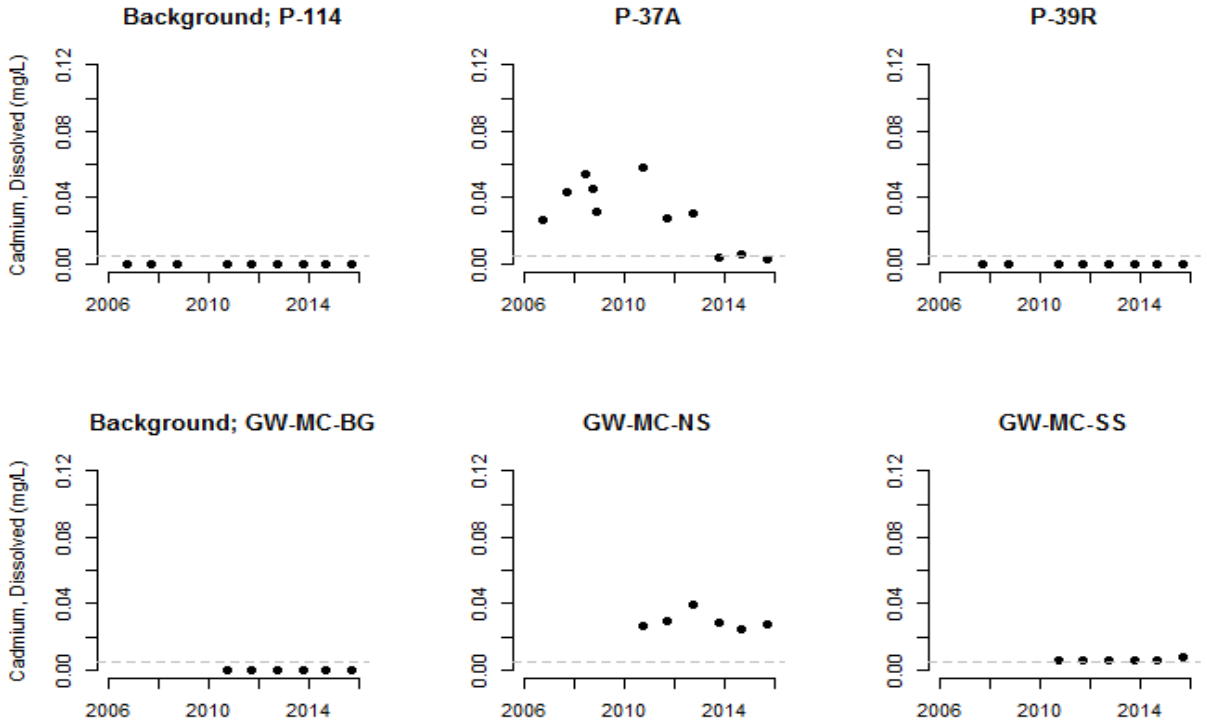

Figure 3-12. Cadmium concentrations in groundwater wells located in Subarea 2 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Each row of plots represents a well cluster: Silver Bow cluster (upper row) and Miles Crossing cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

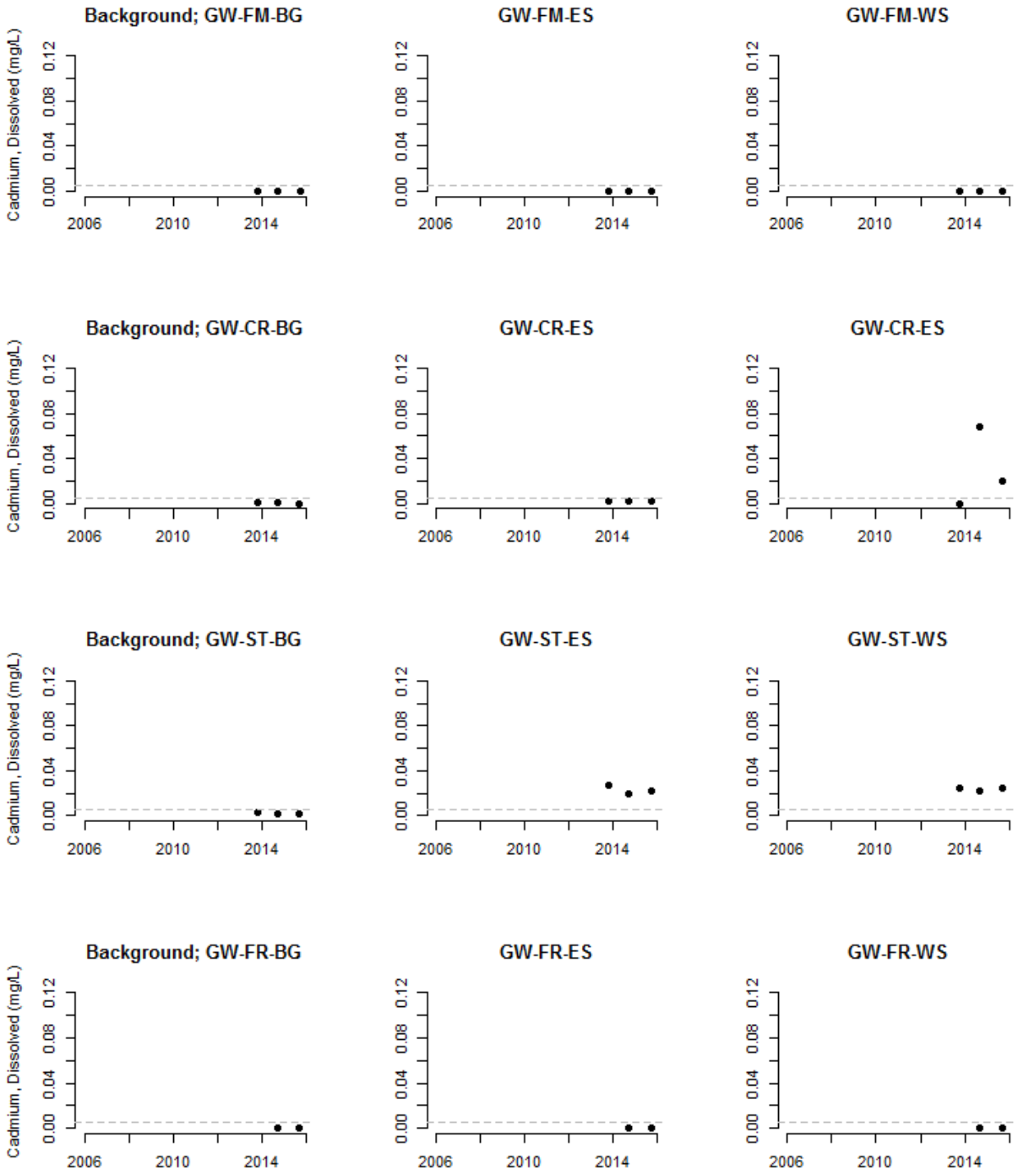

Figure 3-13. Cadmium concentrations in groundwater wells located in Subarea 4 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Each row of plots represents a well cluster: Fairmont cluster (upper row), Crackerville cluster (upper middle row), Stuart cluster (lower middle row), and Frontage Road cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

3.4.2.1.3 Copper

Based on the monitoring period of record in the Silver Bow Creek floodplain, copper concentrations in floodplain monitoring wells were elevated relative to the background well in in all Subarea 1 floodplain monitoring wells, but concentrations were particularly high in monitoring well MW-10 of the Rocker cluster [Figure 3-14]. In Subarea 2, copper concentrations were elevated relative to the background well in one monitoring well (GW-MC-NS; Miles Crossing cluster), however, concentrations in GW-MC-NS appear to be decreasing substantially through time [Figure 3-15]. In Subarea 4, both monitoring wells located in the Stuart cluster have had elevated copper concentrations relative to the background well [Figure 3-16]. Concentrations in monitoring well GW-ST-ES have exceeded the MDHES [1994] groundwater standard during all sample periods (2013-2015) [Figure 3-16].

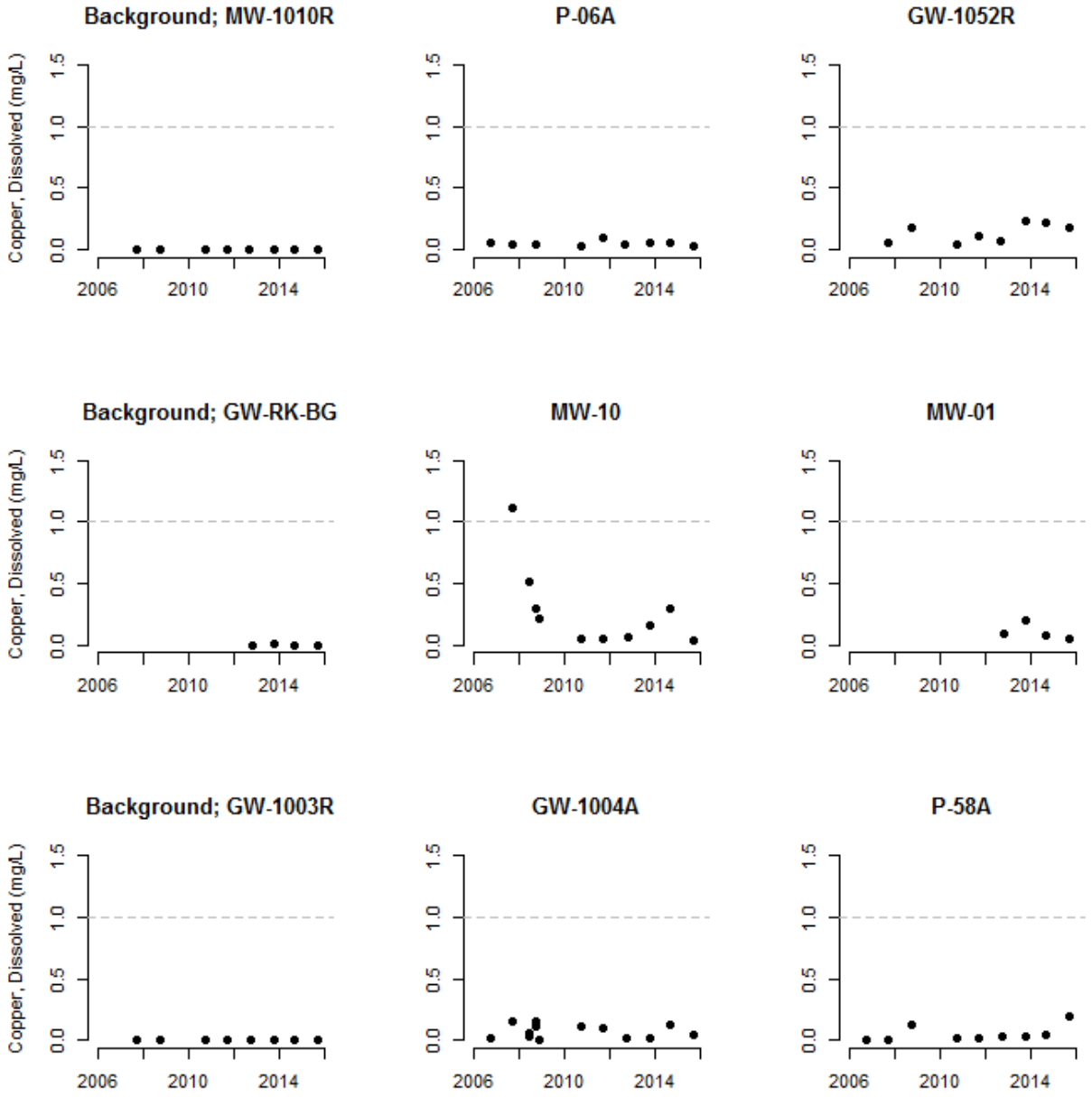

Figure 3-14. Copper concentrations in groundwater wells located in Subarea 1 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDHES, 1994]. Each row of plots represents a well cluster: Colorado Tailings cluster (upper row), Rocker cluster (middle row), and Nissler cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

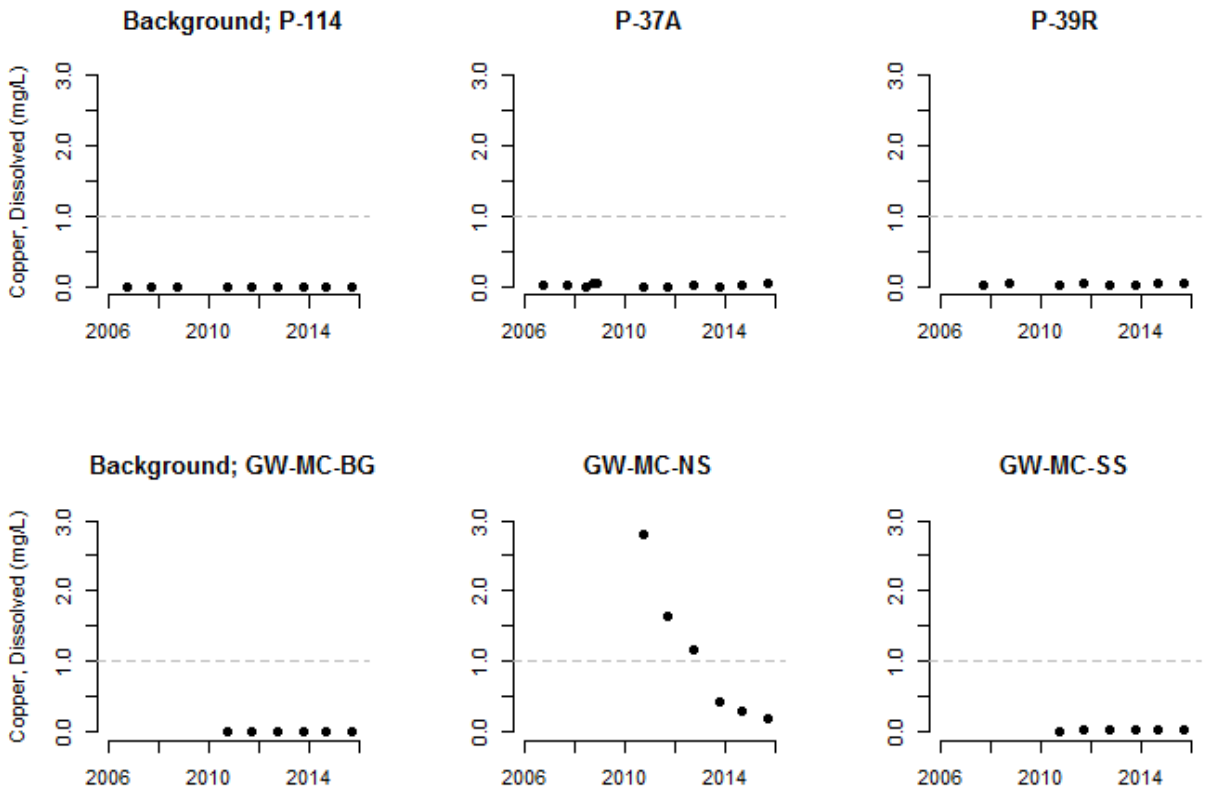

Figure 3-15. Copper concentrations in groundwater wells located in Subarea 2 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDHES, 1994]. Each row of plots represents a well cluster: Silver Bow cluster (upper row) and Miles Crossing cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

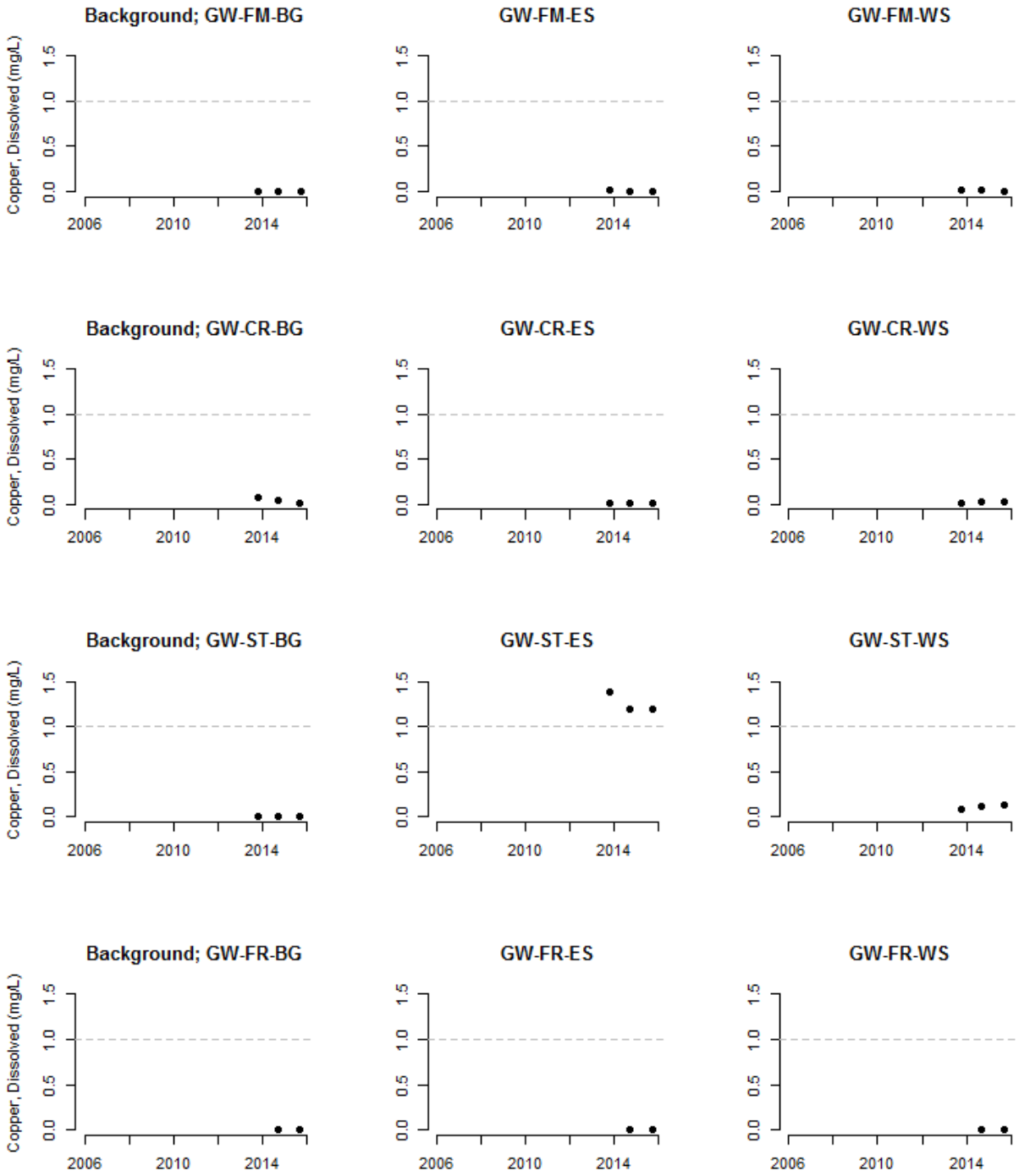

Figure 3-16. Copper concentrations in groundwater wells located in Subarea 4 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDHES, 1994]. Each row of plots represents a well cluster: Fairmont cluster (upper row), Crackerville cluster (upper middle row), Stuart cluster (lower middle row), and Frontage Road cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

3.4.2.1.4 Lead

Based on the monitoring period of record in the Silver Bow Creek floodplain, lead concentrations in floodplain monitoring wells have generally been similar to the concentrations in the background wells in Subarea 1 with a few exceptions during certain monitoring periods [Figure 3-17]. One exception was the Nissler cluster, where well GW-1004A has had relatively high concentrations since 2014 [Figure 3-17]. In Subarea 2, lead concentrations in the monitoring well have been similar to the background wells [Figure 3-18]. In Subarea 4, lead concentrations in the monitoring wells were similar to, or lower than, the concentrations in the background wells in all clusters in 2014 and 2015 [Figure 3-19]. However, lead concentrations in the Fairmont cluster were substantially higher than the background well in 2013 [Figure 3-19].

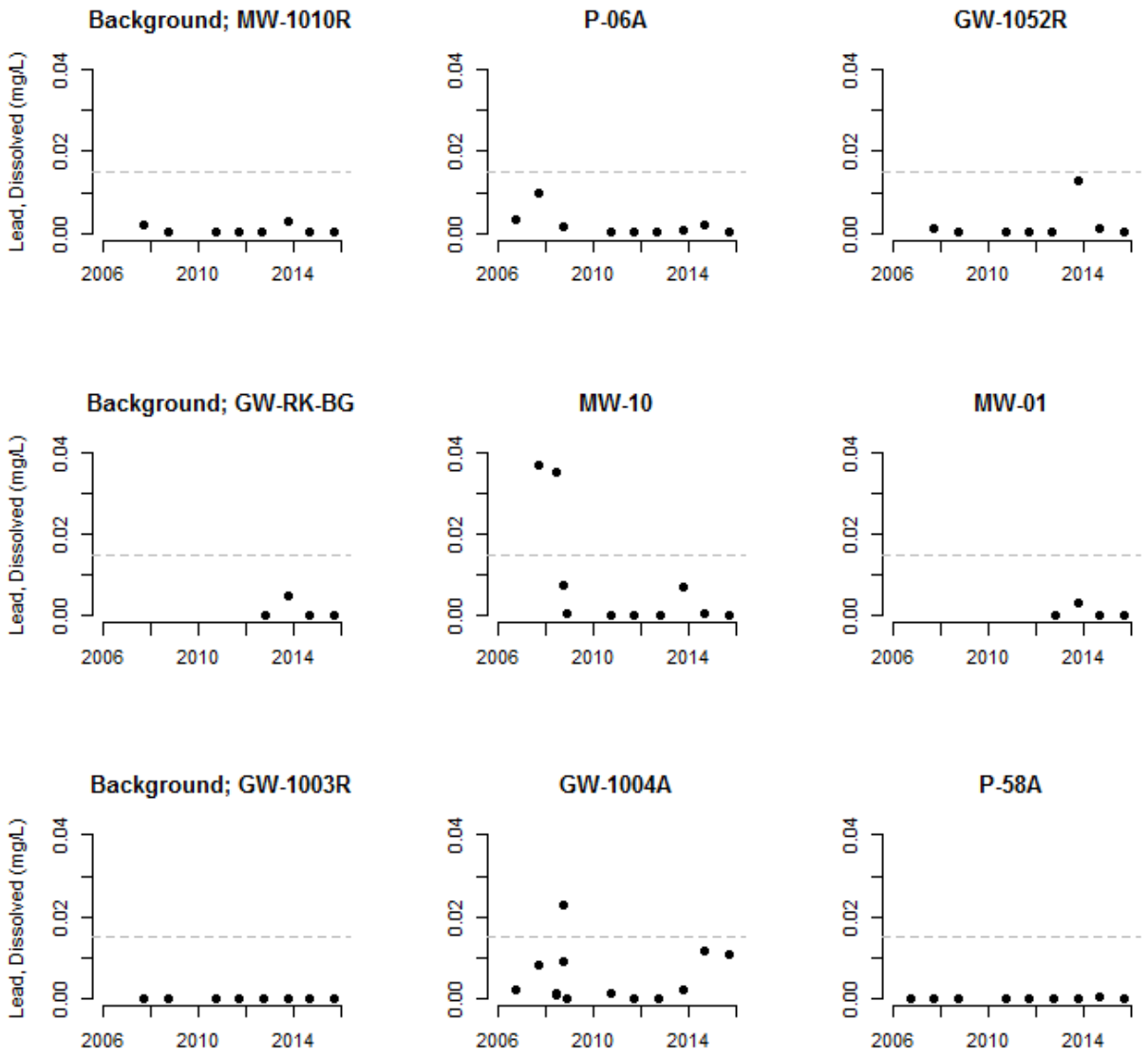

Figure 3-17. Lead concentrations in groundwater wells located in Subarea 1 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Each row of plots represents a well cluster: Colorado Tailings cluster (upper row), Rocker cluster (middle row), and Nissler cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

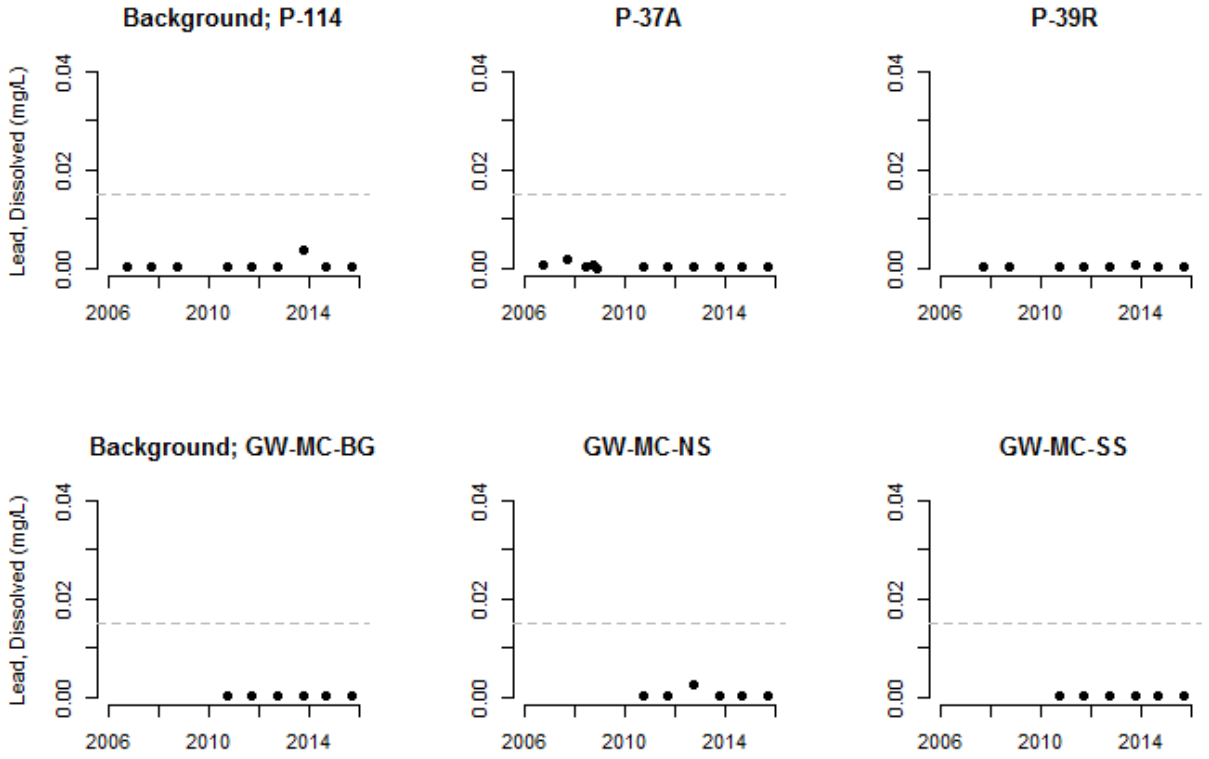

Figure 3-18. Lead concentrations in groundwater wells located in Subarea 2 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Each row of plots represents a well cluster: Silver Bow cluster (upper row) and Miles Crossing cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

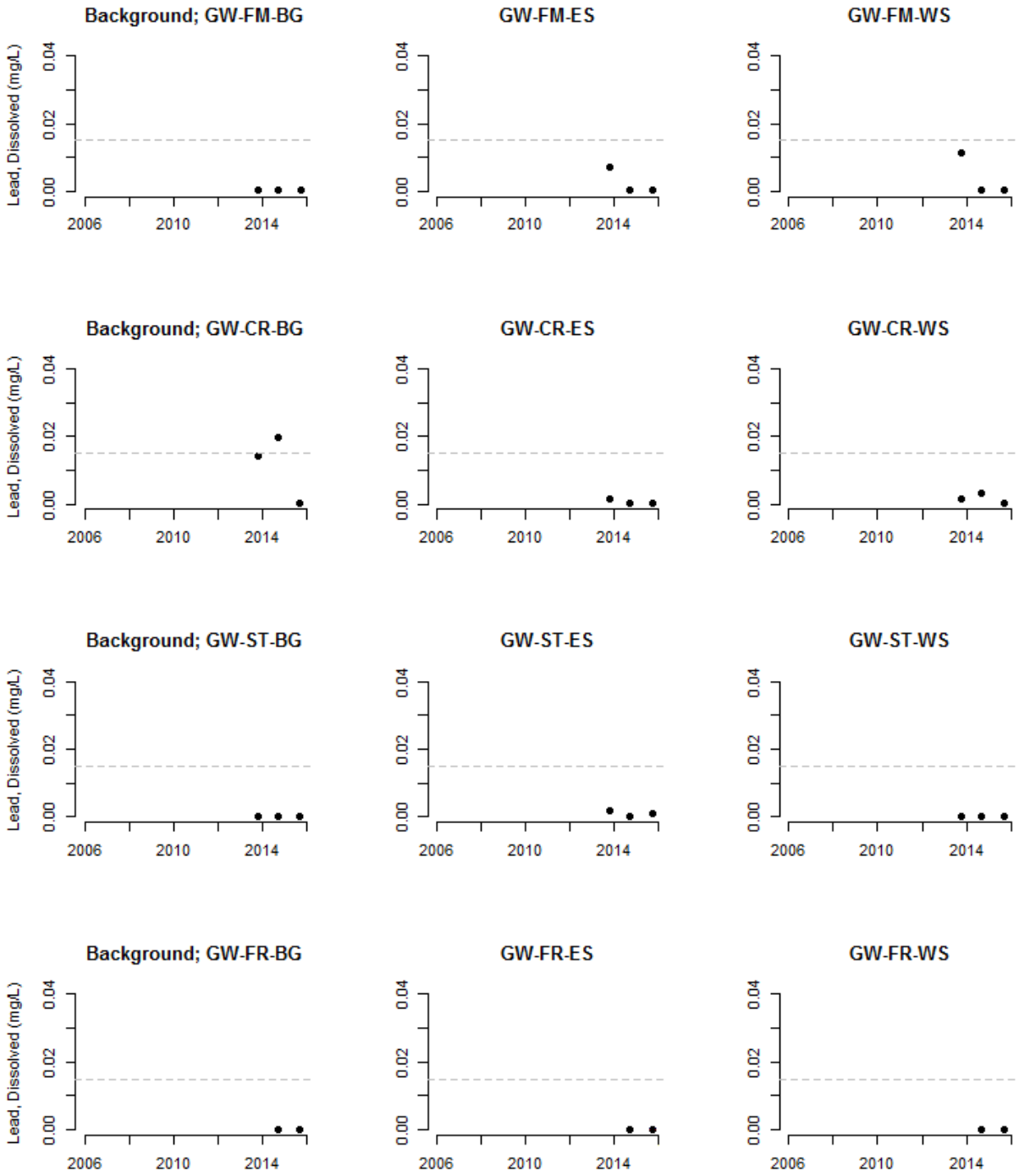

Figure 3-19. Lead concentrations in groundwater wells located in Subarea 4 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Each row of plots represents a well cluster: Fairmont cluster (upper row), Crackerville cluster (upper middle row), Stuart cluster (lower middle row), and Frontage Road cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

3.4.2.1.5 Mercury

Based on the monitoring period of record in the Silver Bow Creek floodplain, mercury concentrations in the background wells have been similar to, or less than, the concentrations in the monitoring wells in all sample periods with the exception of one sample at GW-CR-WS in 2014 [Figure 3-20; Figure 3-21; Figure 3-22].

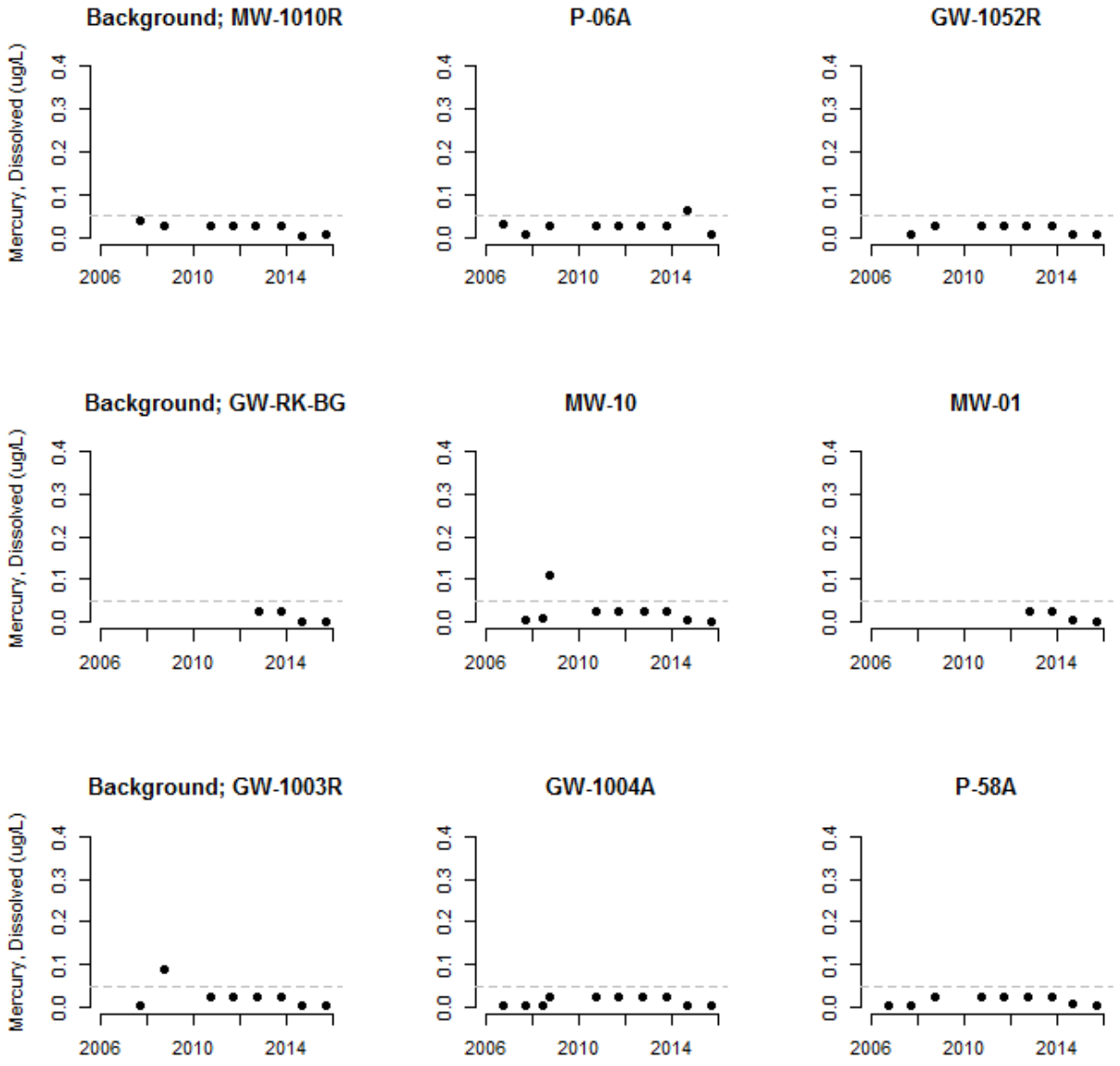

Figure 3-20. Mercury concentrations in groundwater wells located in Subarea 1 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Each row of plots represents a well cluster: Colorado Tailings cluster (upper row), Rocker cluster (middle row), and Nissler cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

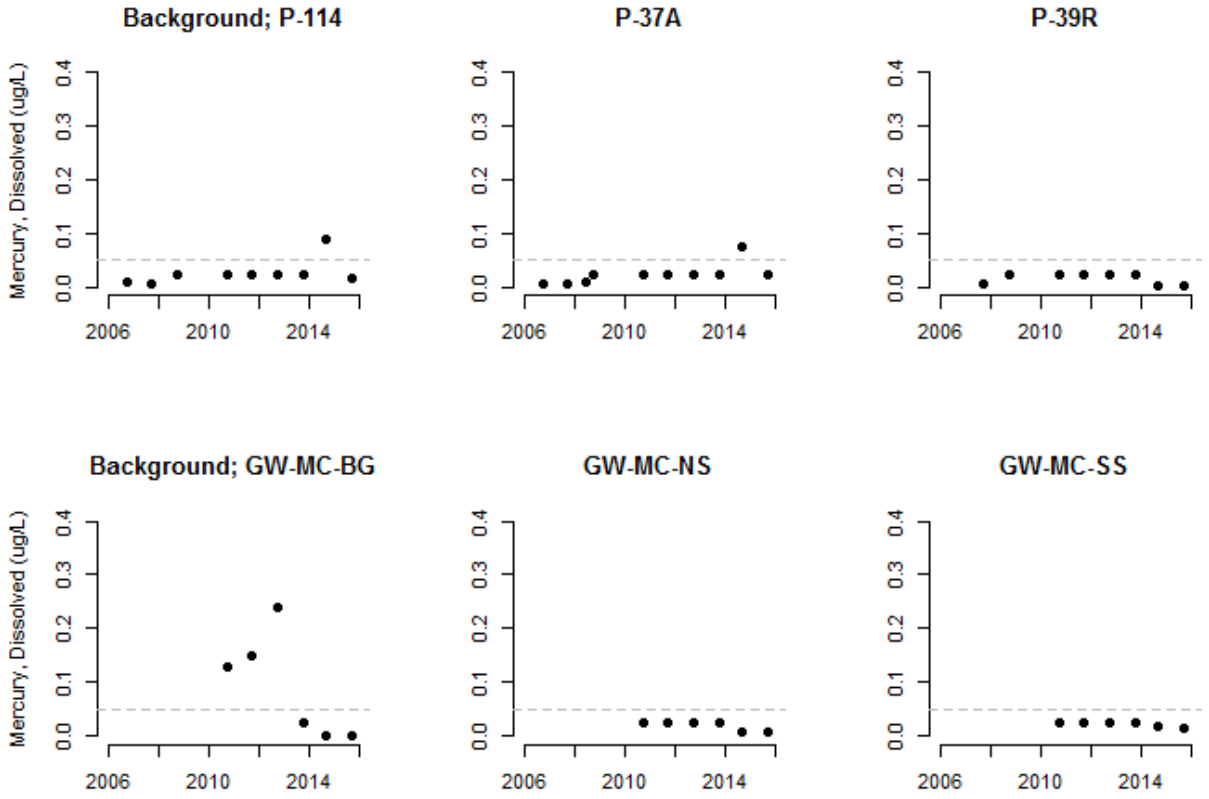

Figure 3-21. Mercury concentrations in groundwater wells located in Subarea 2 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Each row of plots represents a well cluster: Silver Bow cluster (upper row) and Miles Crossing cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

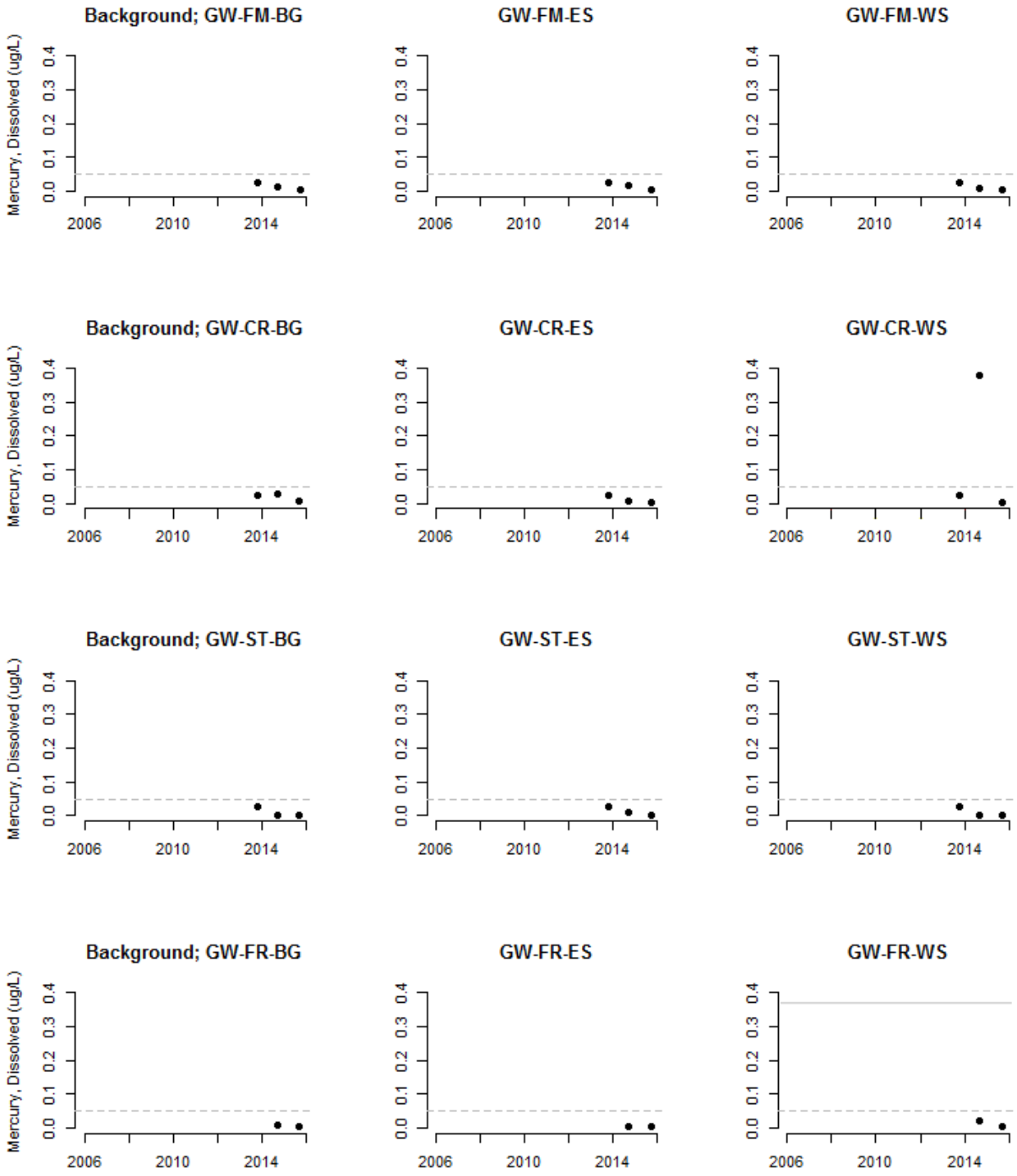

Figure 3-22. Mercury concentrations in groundwater wells located in Subarea 4 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Each row of plots represents a well cluster: Fairmont cluster (upper row), Crackerville cluster (upper middle row), Stuart cluster (lower middle row), and Frontage Road cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

3.4.2.1.6 Zinc

Based on the monitoring period of record in the Silver Bow Creek floodplain, zinc concentrations in one or both monitoring wells have exceeded the concentration in the background well in all Subarea 1 [Figure 3-23] and Subarea 2 [Figure 3-24] clusters and in the Stuart cluster of Subarea 4 [Figure 3-25]. Zinc concentrations commonly have exceeded the groundwater standard [MDEQ, 2012a] in particular monitoring wells including: GW-1052R (Colorado Tailings cluster), MW-10 (Rocker cluster), GW-1004A (Nissler cluster), and P-58A (Nissler cluster) in Subarea 1 [Figure 3-23]; GW-MC-NS (Miles Crossing cluster) and GW-MC-SS (Miles Crossing cluster) in Subarea 2; and GW-ST-ES (Stuart cluster) and GW-ST-WS (Stuart cluster) in Subarea 4 [Figure 3-25].

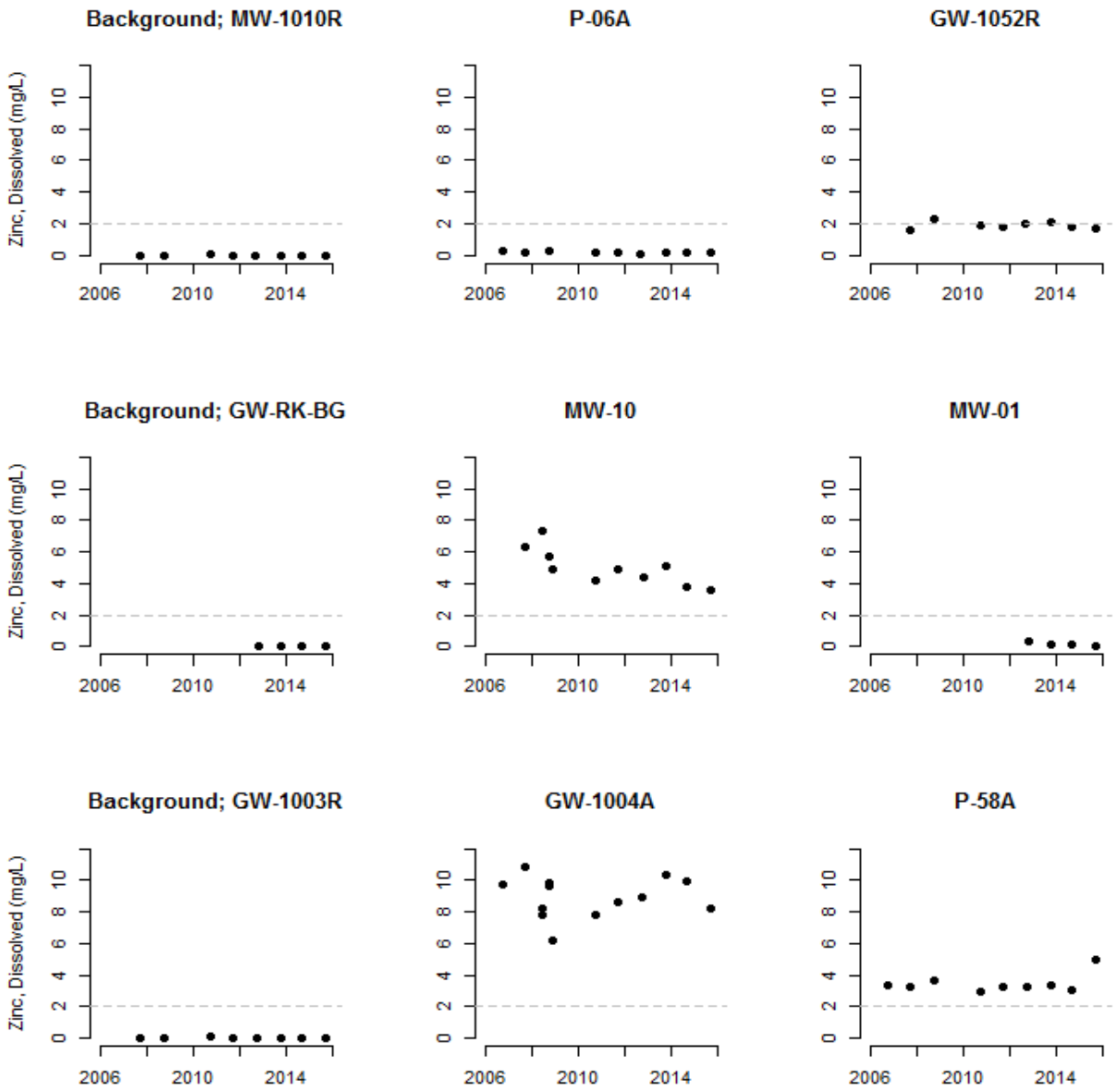

Figure 3-23. Zinc concentrations in groundwater wells located in Subarea 1 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Each row of plots represents a well cluster: Colorado Tailings cluster (upper row), Rocker cluster (middle row), and Nissler cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

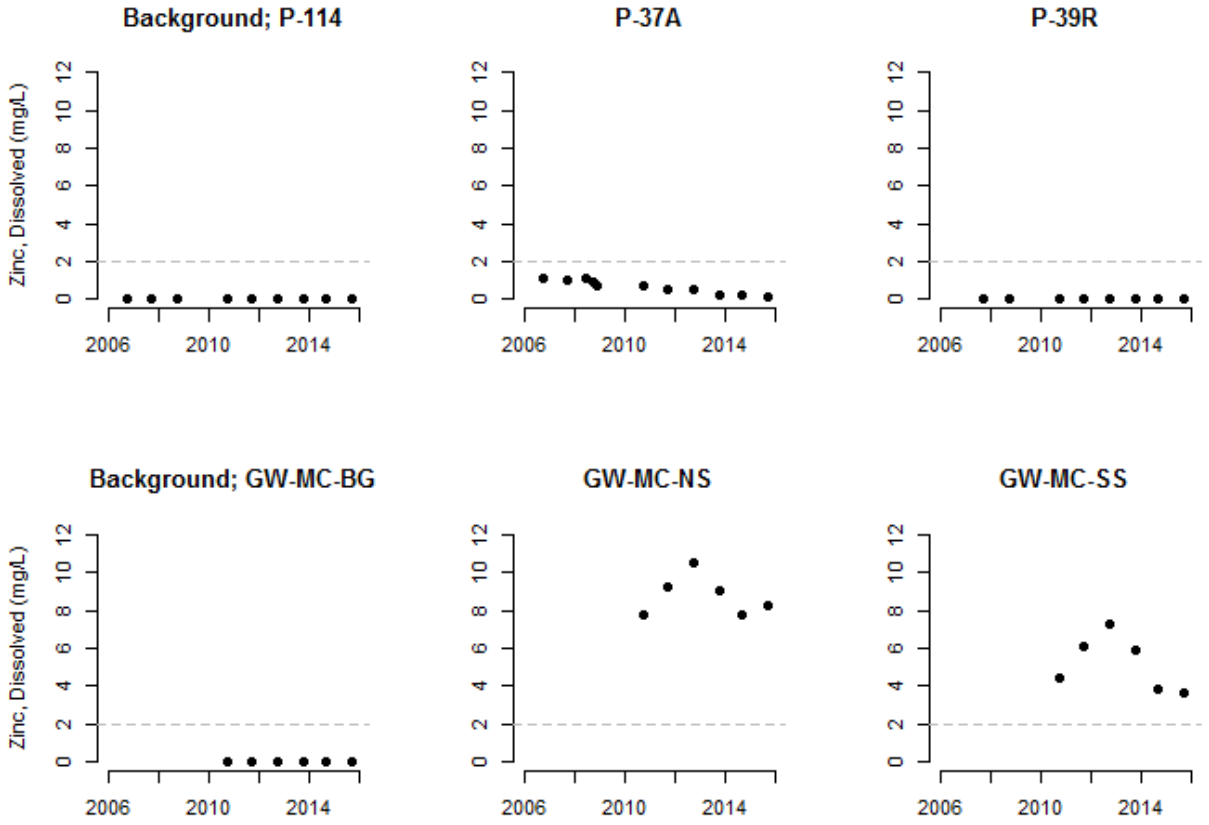

Figure 3-24. Zinc concentrations in groundwater wells located in Subarea 2 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Each row of plots represents a well cluster: Silver Bow cluster (upper row) and Miles Crossing cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

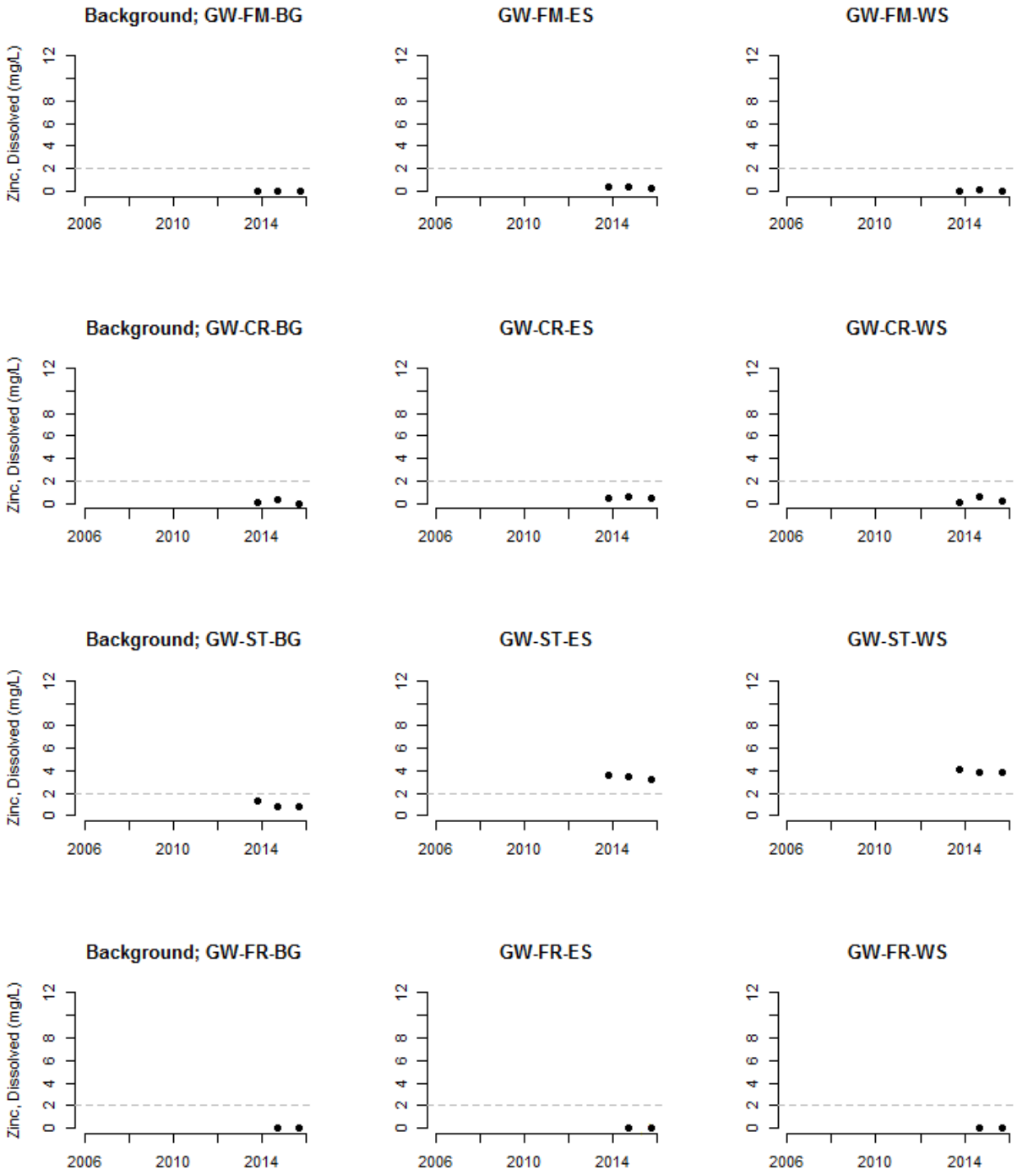

Figure 3-25. Zinc concentrations in groundwater wells located in Subarea 4 of the Streamside Tailings Operable Unit, 2006-2015. Gray dashed line represents the human health groundwater standard [MDEQ, 2012a]. Each row of plots represents a well cluster: Fairmont cluster (upper row), Crackerville cluster (upper middle row), Stuart cluster (lower middle row), and Frontage Road cluster (lower row) [Figure 3-1]. Samples below the analytical reporting limit (RL) are represented as half the RL.

3.4.2.2 Other Metals

Concentrations of non-COC metals in the Silver Bow Creek floodplain wells are displayed in Table 3-11. Two samples had uranium concentrations exceeding the MDEQ [2012a] human health groundwater standard: the Colorado Tailings cluster (Subarea 1) background well (GW-1010R) and one monitoring well (P-39R) in the Silver Bow cluster (Subarea 1) [Table 3-11].

Table 3-11. Dissolved metal (non-contaminant of concern) concentrations (mg/L) in groundwater monitoring wells located along Silver Bow Creek in the Streamside Tailings Operable Unit, September 2014[17].

Cluster	Site	Al	Sb	Ba	Be	B	Cr	Co	Fe	Mn	Mb	Ni	Se	Ag	U	V
Colorado Tailings	GW-1010R*	ND	ND	0.023	ND	0.1	ND	ND	ND	ND	0.010	ND	ND	ND	0.1020	ND
	GW-1052R	ND	ND	0.030	ND	0.1	ND	ND	ND	2.720	0.026	ND	ND	ND	0.0034	ND
	P-06A	0.297	ND	0.028	ND	ND	ND	ND	0.14	0.114	ND	ND	ND	ND	0.0091	ND
Rocker	GW-RK-BG*	ND	ND	0.072	ND	ND	ND	ND	ND	ND	0.011	ND	0.001	ND	0.0063	ND
	MW-01	ND	ND	0.020	ND	0.1	ND	ND	ND	0.342	ND	ND	ND	ND	0.0061	ND
	MW-10	0.240	ND	0.020	ND	ND	ND	0.02	7.79	4.990	ND	0.007	ND	ND	0.0004	ND
Nissler	GW-1003R*	ND	ND	0.044	ND	ND	ND	ND	ND	0.008	0.011	ND	ND	ND	0.0029	ND
	1GW-1004A	0.364	ND	0.013	ND	ND	ND	0.05	60.20	27.100	ND	0.020	ND	ND	0.0003	ND
	P-58A	0.501	ND	0.036	ND	ND	ND	0.02	8.78	9.250	ND	0.010	ND	ND	0.0006	ND
Silver Bow	P-114*	ND	ND	0.025	ND	ND	ND	ND	ND	ND	0.007	ND	ND	ND	0.0029	ND
	P-37A	ND	ND	0.080	ND	ND	ND	ND	ND	5.410	ND	0.004	ND	ND	0.0052	ND
	P-39R	ND	ND	0.142	ND	0.3	ND	ND	ND	0.008	ND	ND	0.002	ND	0.0830	ND
Miles Crossing	GW-MC-BG*	ND	ND	0.034	ND	ND	ND	ND	ND	0.003	0.048	0.005	ND	ND	0.0029	ND
	GW-MC-NS	0.049	ND	0.030	ND	ND	ND	0.01	ND	5.450	0.006	0.015	ND	ND	0.0020	ND
	GW-MC-SS	ND	ND	0.040	ND	ND	ND	ND	ND	5.100	0.039	0.012	ND	ND	0.0011	ND
Fairmont	GW-FM-BG*	0.014	ND	0.038	ND	ND	ND	ND	ND	0.335	ND	0.005	ND	ND	0.0002	ND
	GW-FM-ES	ND	ND	0.042	ND	ND	ND	ND	ND	1.240	0.006	0.002	ND	ND	0.0013	ND
	GW-FM-WS	0.041	ND	0.122	ND	ND	ND	ND	0.07	2.070	0.007	ND	ND	ND	0.0047	ND
Crackerville	GW-CR-BG*	ND	0.003	0.014	ND	0.2	ND	ND	ND	0.102	0.026	0.002	ND	ND	0.0017	ND
	GW-CR-ES	0.023	ND	0.020	ND	ND	ND	ND	ND	0.018	ND	0.002	ND	ND	0.0012	ND
	GW-CR-WS	ND	8E-04	0.037	ND	ND	ND	ND	ND	2.400	0.012	0.002	ND	ND	0.0032	ND
Stuart	GW-ST-BG*	ND	ND	0.022	ND	ND	ND	ND	ND	0.596	ND	0.023	ND	ND	ND	ND
	GW-ST-ES	0.396	ND	0.022	9E-04	ND	ND	ND	ND	1.330	ND	0.009	ND	ND	0.0020	ND
	GW-ST-WS	0.110	ND	0.025	ND	ND	ND	ND	ND	2.150	ND	0.013	ND	ND	0.0007	ND
Frontage Road	GW-FR-BG*	ND	0.002	0.032	ND	ND	ND	ND	ND	0.030	ND	ND	ND	ND	0.0049	ND
	GW-FR-ES	ND	ND	0.065	ND	ND	ND	ND	ND	0.303	0.007	ND	ND	ND	0.0186	ND
	GW-FR-WS	ND	0.003	0.059	ND	ND	ND	ND	ND	0.072	0.007	ND	ND	ND	0.0238	ND

ND Not detected at analytical reporting limit.
* Background well.
Exceeds human health groundwater standard [MDEQ, 2012a].

[17] Metal abbreviations: Al = aluminum, Sb = antimony, Ba = barium, Be = beryllium, B = boron, Cr = chromium, Co = cobalt, Fe = iron, Mn = manganese, Mb = molybdenum, Ni = nickel, Se = selenium, Ag = silver, U = uranium, and V = vanadium.

3.4.2.3 Common Ions

Common ion concentrations in floodplain monitoring wells are depicted in Table 3-12.

Table 3-12. Common ion concentrations (mg/L) in groundwater monitoring wells located along Silver Bow Creek in the Streamside Tailings Operable Unit, September 2015.

Cluster	Site	Alkalinity (as CaCO3)	Bicarbonate Alkalinity (as HCO3)	Calcium	Chloride	Hardness (as CaCO3)	Magnesium	Potassium	Sodium	Sulfate
Colorado Tailings	GW-1010R*	290	350	104	20	343	20	7	146	371
	GW-1052R	140	170	72	14	231	12	8	95	306
	P-06A	130	160	72	80	238	14	6	77	181
Rocker	GW-RK-BG*	140	170	59	33	203	14	5	38	94
	MW-01	180	220	102	20	328	18	8	31	187
	MW-10	13	16	30	39	108	8	5	32	127
Nissler	GW-1003R*	120	150	35	11	114	7	6	32	40
	1GW-1004A	ND	ND	83	51	382	43	7	52	671
	P-58A	29	35	68	52	226	14	8	33	217
Silver Bow	P-114*	200	240	57	33	166	6	5	98	122
	P-37A	180	210	155	137	491	25	10	88	308
	P-39R	340	420	207	58	665	36	15	92	333
Miles Crossing	GW-MC-BG*	270	330	37	77	126	8	5	230	258
	GW-MC-NS	46	56	35	44	126	9	6	32	99
	GW-MC-SS	92	110	43	46	156	12	6	33	91
Fairmont	GW-FM-BG*	36	44	35	21	117	7	5	24	104
	GW-FM-ES	100	130	46	36	152	9	5	27	71
	GW-FM-WS	130	150	51	29	172	10	4	24	61
Crackerville	GW-CR-BG*	130	160	14	21	42	2	4	124	114
	GW-CR-ES	93	110	41	38	138	8	3	51	96
	GW-CR-WS	100	120	45	34	142	7	5	35	65
Stuart	GW-ST-BG*	18	21	66	46	228	15	4	24	222
	GW-ST-ES	4	5	29	30	89	4	5	20	87
	GW-ST-WS	24	29	32	35	106	6	5	21	90
Frontage Road	GW-FR-BG*	260	310	36	1	118	7	1	8	14
	GW-FR-ES	160	200	91	13	303	18	3	16	182
	GW-FR-WS	220	270	41	ND	133	8	2	8	19

ND Not detected at analytical reporting limit.

* Background well.

3.4.3 Data Validation

Four field blank samples were collected in 2015 and each was analyzed for 30 analytes. All analyte concentrations in all field blanks were below the analytical reporting limits.

Four field duplicate samples were collected in 2015 and each analyte concentration in those samples was compared to the analyte concentration in the paired field sample. The relative percent difference (RPD) between each analyte pair (30 analytes per sample) was calculated on a total of 120 sample pairs. Of those 120 pairs, all had RPDs <19%. The mean RPD of those duplicate and sample pairs which were at least five times greater than the reporting limit (n = 49) was 2.2% (standard deviation = 3.6%).

A completed quality assurance and quality control checklist, summary tables of field duplicate and field blank results, and assessments of data quality objectives are included in Appendix A. Results from the analytical laboratory are included in Appendix B. The 2015 groundwater monitoring data are included in Appendix E.

3.5 DISCUSSION

3.5.1 Mine Waste Relocation Repository

Monitoring in 2015 provided no evidence that COCs were leaching from the MWRR into nearby groundwater during wet (May) or dry periods (September). With the exception of arsenic, all COC concentrations in the monitoring wells were either below the analytical reporting limits or near the reporting limits. For arsenic, concentrations were consistently highest in the background monitoring well and these results are consistent with prior monitoring years. There does not appear to be any evidence that substantial increases in COC concentrations are occurring through time in any of the MWRR monitoring wells as would be expected if leaching of COC from the repository were occurring.

3.5.2 Floodplain

In the floodplain well clusters in 2015, several samples from monitoring wells had COC concentrations above the background well concentration, above the most restrictive MDHES [1994] or MDEQ [2012a] groundwater standard, or both. Arsenic concentrations were generally highest in the background wells, particularly in the Miles Crossing (Subarea 2) and Crackerville (Subarea 4) cluster. However, cadmium copper, and zinc concentrations in certain monitoring wells were commonly one to several orders of magnitude higher than the concentration in the background well. In addition, cadmium and zinc concentrations in monitoring wells were also frequently several times greater than the groundwater standard and one sample from a monitoring well exceeded the copper standard. These results indicate that portions of the shallow groundwater aquifer in the SSTOU remain contaminated by COC. Uranium concentrations in groundwater wells also exceeded the MDEQ [2012a] groundwater standard in two wells, one of which was a background well. Monitoring results in 2015 were generally

similar to prior years, although at certain wells some COC concentrations have been variable through time.

3.5.3 Data Validation

Quality assurance and quality control results suggested that field procedures in 2015 resulted in little or no sample contamination. All field blank analyte concentrations were below reporting limits suggesting that decontamination procedures were adequate. All comparisons of field samples and field duplicates were within the data quality objectives for the project.

4.0 VADOSE ZONE WATER

4.1 INTRODUCTION

This chapter describes vadose zone water quality monitoring data collected in 2015 to evaluate the effectiveness of the mine waste relocation repository (MWRR) at isolating the vadose zone from metal contaminants of concern (COC) in waste materials stored at the MWRR. If leaching of metal COCs from the MWRR occurs there is a potential for contamination of groundwater and surface water in the Streamside Tailings Operable Unit (SSTOU) of the Silver Bow Creek/Butte Area National Priorities List site.

The vadose zone is the area between the soil surface and the groundwater table. Water present in the vadose zone is soil moisture and has the ability to transport colloidal and dissolved nutrients, minerals, and contaminants through the soil column. Typically, constituent concentrations are higher in vadose zone water compared to groundwater. Therefore, existing groundwater standards are not applicable to vadose zone water. In lieu of groundwater exceedance analysis, COC concentrations in vadose zone water at lysimeters located down-gradient from the repository were evaluated and compared to concentrations in one background lysimeter.

Two questions are of primary interest in assessing potential leaching of COCs from the MWRR. First, are COC concentrations in monitoring lysimeters higher than concentrations in the background lysimeter? If so, contamination of the soil by COCs stored in the repository has potentially occurred. Second, are COC concentrations increasing through time in the monitoring lysimeters? If so, leaching of COCs from the repository may be occurring.

4.2 METHODS

The purpose of the vadose zone monitoring program is to collect data describing the temporal and spatial variation of metal and ion concentrations in vadose zone water near the MWRR in the SSTOU. These data provide a long-term record of vadose zone water COC and ion concentrations near the MWRR. These long-term data will be used to assess if leaching of COCs from the MWRR to groundwater and surface water in the SSTOU is occurring. A record of changes to the vadose zone monitoring program is provided in the program monitoring plan [Naughton et al., 2015a]. The program attempts to fully adhere to monitoring requirements specified in the SSTOU ROD [Table 4-1].

Table 4-1. Minimum post-remedy monitoring requirements specified in the Record of Decision for the Streamside Tailings Operable Unit [MDEQ and USEPA, 1995].

Locations/Physical	Analytical Parameters	Analytes
In conjunction with groundwater sampling locations; three (3) per repository location	Metals (dissolved)	Arsenic, cadmium, copper, lead, mercury, zinc
	Common ions	Calcium, magnesium, sodium, potassium, chloride, sulfate
	Physical properties	Temperature, acidity (pH), oxidation-reduction potential, conductance

4.2.1 Monitoring Locations

Vadose zone water chemistry was monitored at eight lysimeters located in the vicinity of the MWRR in 2015 [Figure 4-1; Table 4-2]. The MWRR lysimeter cluster included a background monitoring lysimeter located up-gradient from the MWRR.

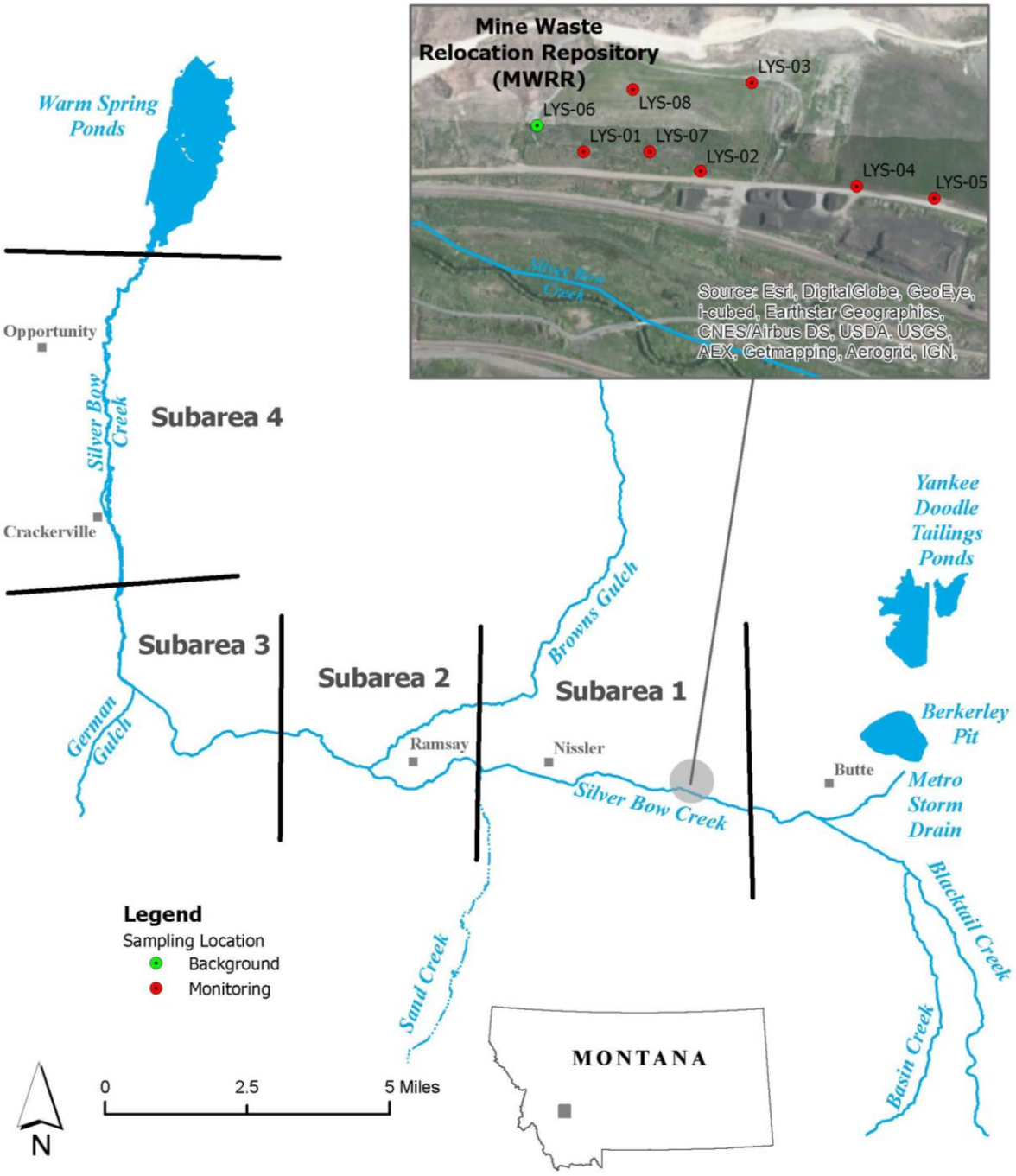

Figure 4-1. Sampling locations for vadose zone water monitoring in the Streamside Tailings Operable Unit, 2015.

Table 4-2. Lysimeter locations for vadose zone water monitoring of the Mine Waste Relocation Repository (MWRR) in the Streamside Tailings Operable Unit, 2015.

Lysimeter ID	Purpose	Location (GPS coordinates, NAD 83)	
		latitude	longitude
LYS-01	Monitoring	46.00261	-112.58599
LYS-02	Monitoring	46.00244	-112.58403
LYS-03	Monitoring	46.00349	-112.58323
LYS-04	Monitoring	46.00233	-112.58141
LYS-05	Monitoring	46.00223	-112.58011
LYS-06	Background	46.00289	-112.58679
LYS-07	Monitoring	46.00264	-112.58489
LYS-08	Monitoring	46.00336	-112.58521

4.2.2 Monitoring Schedule

In 2015, vadose zone water was monitored on May 7 and September 15. During both sample periods, vadose zone water was monitored at each lysimeter in the MWRR cluster. The May 7 sampling date was scheduled near the peak of the spring snowmelt hydrograph. The September 15 sampling date was scheduled to approximate base streamflow conditions

4.2.3 Monitoring Parameters

Vadose zone water samples were analyzed for the parameters and analytes listed in Table 4-3.

Table 4-3. Sampling parameters and analytes for vadose zone water monitoring in the vicinity of the Mine Waste Relocation Repository of the Streamside Tailings Operable Unit, 2015.

Parameter	Analytes
Concentrations of metal contaminants of concern (dissolved)	Arsenic, cadmium, copper, lead, mercury, zinc
Concentrations of other metals (dissolved)	Aluminum, antimony, barium, beryllium, boron, cobalt, chromium, iron, manganese, molybdenum, nickel, selenium, uranium, vanadium
Common ion concentrations	Sulfate, total alkalinity, bicarbonate alkalinity, calcium, magnesium, sodium, potassium, chloride, hardness
Other physical properties	Water temperature, pH, specific conductivity

4.2.4 Sample Collection and Analysis Procedures

Sample collection, analysis, and quality assurance procedures are described in the project sampling and analysis plan [Naughton et al., 2015a]. Methods generally followed standard operating procedures (SOPs) developed for the Clark Fork River [AR, 1992]. Field sampling procedures were in accordance with MDEQ [2012b] and followed "clean hands/dirty hands" procedures as described in USGS [2006]. Dedicated, or disposable, well bailers were used in low yield wells where installation of a submersible pump was impractical.

Due to low sample volume in the lysimeters, some deviations from the standard operating procedures previously described occurred. First, sample bottles were not triple rinsed with each sample prior to collection. Second, samples were not field filtered but were instead lab filtered. Third, when sample volume was very limited, dissolved metals were prioritized over common ions for laboratory analysis. Finally, field parameters (water temperature, pH, dissolved oxygen concentration, and conductivity) were not measured.

Calibration methods for field meters, data recording and handling methods, and quality assurance and quality control procedures are described in the project quality assurance project plan [Naughton et al., 2014]. Samples were analyzed by Energy Laboratories (Helena, Montana). Laboratory analysis procedures for each analyte are presented in Table 4-4.

Table 4-4. Analytes, methods, and reporting limits for groundwater sampling in the Streamside Tailings Operable Unit, 2015.

Analyte	Requested Method	Requested Reporting Limit (mg/L)[18]	Holding Time (days)	Bottle	Preservative
Water Samples - Physical Properties and Inorganics					
Alkalinity, Total (as CaCO3)	A 2320 B	4	14	500 mL HDPE	4 ± 2 C
Alkalinity, Bicarbonate (as HCO3)	A 2320 B	4	14		
Chloride	EPA 300.0	1	28		
Sulfate	EPA 300.0	1	28		
Hardness (as CaCO3)	A 2340 B	1	180		
Water Samples - Dissolved Metals (0.45 µm filtered)					
Aluminum	EPA 200.8	0.009	180	250 mL HDPE	HNO3 to pH <2
Antimony	EPA 200.8	0.0005			
Arsenic	EPA 200.8	0.001			
Barium	EPA 200.8	0.003			
Beryllium	EPA 200.8	0.0008			
Boron	EPA 200.7	0.1			
Cadmium	EPA 200.8	0.00003			
Calcium	EPA 200.8	1			
Chromium	EPA 200.8	0.01			
Cobalt	EPA 200.8	0.01			
Copper	EPA 200.8	0.001			
Iron	EPA 200.8	0.02			
Lead	EPA 200.8	0.0003			
Magnesium	EPA 200.7	1			
Manganese	EPA 200.8	0.001			
Molybdenum	EPA 200.8	0.005			
Nickel	EPA 200.8	0.002			
Potassium	EPA 200.7	1			
Selenium	EPA 200.8	0.001			
Silver	EPA 200.8	0.0002			
Sodium	EPA 200.7	1			
Uranium	EPA 200.8	0.0002			
Vanadium	EPA 200.8	0.1			
Zinc	EPA 200.8	0.008			
Mercury	EPA 245.1	0.000005	28		

[18] Requested reporting limits are either the required reporting limit from MDEQ [2012a] or MDEQ [2014] (for nutrients), or the lowest reporting limit previously provided by the analytical laboratory, whichever is lower.

4.2.5 Data Analysis

Dissolved metal and common ion concentrations from 2015 are presented in tabular form for each sampling event. All metal COC concentrations through the monitoring period (2010-2015) at each lysimeter are also plotted through time to evaluate temporal trends. Finally, for each COC, differences in concentrations in the background lysimeter and each monitoring lysimeter were compared with paired *t*-tests using data from the last six-year period (2010-2015). Only lysimeters which have produced sufficient sample volumes for every sample period from 2010-2015 were included. Samples with analyte concentrations below the reporting limit were assumed to be half the reporting limit for these tests.

4.2.6 Data Validation

Data quality objectives (DQOs) were established in the SSTOU monitoring project quality assurance project plan (QAPP) for "data representativeness", "comparability", "completeness", "sensitivity", "precision", "bias", and "accuracy" [Naughton et al., 2014]. Methods for field and laboratory quality assurance and quality control (QA/QC) procedures are described in detail in the project QAPP. A completed QA/QC checklist, summary tables of field duplicate and field blank results, and assessments of data quality objectives are included in Appendix A.

4.3 PERFORMANCE GOALS

There are no specific numeric concentration cleanup goals for vadose zone water COC concentrations in the SSTOU Record of Decision (ROD) [MDEQ and USEPA, 1995]. The ROD specifies that metals and common ion concentrations are to be monitored in vadose zone water at each waste relocation repository to assess the mobility of contaminants from the repository sites to underlying groundwater or to the Silver Bow Creek floodplain down-gradient from any repositories. Only one waste repository (the MWRR) has been established in the SSTOU.

4.4 RESULTS

Dissolved metal COC concentrations in MWRR lysimeters in 2015 are presented in Table 4-5. Concentrations of dissolved metals which are not COCs in MWRR lysimeters are presented in Table 4-6. Common ion concentrations in MWRR lysimeters are presented in Table 4-7.

In May 2015, sample volumes were sufficient for analysis of dissolved metals in all lysimeters [Table 4-5; Table 4-6] but sample volumes were insufficient to analyze all common ions in two lysimeters: LYS-03 and LYS-07 [Table 4-7]. In September 2015, sample volumes were sufficient for analysis of dissolved metals in all lysimeters except LYS-07 and LYS-08 [Table 4-5; Table 4-6]. During September 2015, sample volumes were sufficient for analysis of all metals other than mercury in LYS-07 but insufficient for analysis of any metals in LYS-08[Table 4-5; Table 4-6]. Sample volumes were sufficient for analysis of all common ions in

September 2015 except LYS-07 and LYS-08 [Table 4-7]. Some ion concentrations were analyzed in LYS-07 in September 2015 but none were analyzed in LYS-08 [Table 4-7].

Table 4-5. Dissolved metal (contaminant of concern) concentrations (mg/L) in lysimeters of the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2015.

Site	Arsenic	Cadmium	Copper	Lead	Mercury	Zinc
May						
LYS-06*	0.002	ND	0.007	ND	0.000009	0.028
LYS-01	0.004	ND	ND	ND	ND	ND
LYS-02	0.028	0.00005	0.009	ND	0.000024	0.014
LYS-03	0.081	ND	0.002	ND	0.000011	0.008
LYS-04	0.074	0.00004	0.007	ND	0.000005	0.013
LYS-05	0.018	0.00018	0.010	ND	0.00004	0.014
LYS-07	0.006	0.00007	0.004	ND	0.000006	ND
LYS-08	0.005	0.00021	0.001	ND	0.000006	ND
September						
LYS-06*	0.002	ND	0.007	ND	ND	ND
LYS-01	0.004	ND	ND	ND	ND	ND
LYS-02	0.034	0.00004	0.008	ND	0.000006	ND
LYS-03	0.119	ND	0.002	ND	ND	ND
LYS-04	0.068	0.00004	0.007	ND	0.000046	0.009
LYS-05	0.016	0.00016	0.009	ND	ND	0.011
LYS-07	0.005	0.00007	0.004	ND	DNA	0.072
LYS-08	DNA	DNA	DNA	DNA	DNA	DNA

* Background lysimeter.

DNA Not sampled due to insufficient sample volume.

ND Not detected at analytical reporting limit.

Table 4-6. Dissolved metal (not contaminants of concern) concentrations (mg/L) in lysimeters of the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2015[19].

Site	Al	Sb	Ba	Be	B	Cr	Co	Fe	Mn	Mb	Ni	Se	Ag	U	V
May															
LYS-06*	ND	0.0005	0.009	ND	0.2	ND	ND	ND	0.003	0.008	ND	ND	ND	0.0023	ND
LYS-01	ND	ND	0.034	ND	ND	ND	ND	ND	ND	ND	ND	0.005	ND	0.0619	ND
LYS-02	ND	0.0006	0.011	ND	0.5	ND	ND	ND	ND	0.045	ND	0.018	ND	0.8060	ND
LYS-03	ND	ND	0.030	ND	0.1	ND	ND	ND	0.001	0.017	ND	ND	ND	0.0021	ND
LYS-04	ND	ND	0.060	ND	ND	ND	ND	ND	ND	ND	ND	0.003	ND	0.0274	ND
LYS-05	ND	ND	0.015	ND	2.1	ND	ND	ND	ND	0.026	ND	0.009	ND	1.8600	ND
LYS-07	ND	ND	0.006	ND	0.2	ND	ND	ND	ND	0.106	ND	0.002	ND	0.2070	ND
LYS-08	ND	ND	0.026	ND	0.1	ND	ND	ND	0.007	0.007	ND	0.012	ND	0.1280	ND
September															
LYS-06*	ND	ND	0.010	ND	0.3	ND	ND	ND	0.001	0.013	ND	0.002	ND	0.0011	ND
LYS-01	ND	ND	0.042	ND	ND	ND	ND	ND	ND	ND	ND	0.005	ND	0.0787	ND
LYS-02	ND	0.0010	0.015	ND	0.6	ND	ND	ND	ND	0.062	ND	0.046	ND	1.6500	ND
LYS-03	ND	0.0008	0.051	ND	0.2	ND	ND	ND	0.002	0.037	ND	ND	ND	0.0076	ND
LYS-04	ND	0.0017	0.070	ND	0.1	ND	ND	ND	ND	ND	ND	0.003	ND	0.0269	ND
LYS-05	ND	0.0014	0.015	ND	2.2	ND	ND	ND	ND	0.024	ND	0.009	ND	1.7000	ND
LYS-07	ND	ND	0.006	ND	0.2	ND	ND	ND	0.002	0.090	ND	0.002	ND	0.2790	ND
LYS-08	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA

* Background lysimeter.

DNA Not sampled due to insufficient sample volume.

ND Not detected at analytical reporting limit.

[19] Metal abbreviations: Al = aluminum, Sb = antimony, Ba = barium, Be = beryllium, B = boron, Cr = chromium, Co = cobalt, Fe = iron, Mn = manganese, Mb = molybdenum, Ni = nickel, Se = selenium, Ag = silver, U = uranium, and V = vanadium.

Table 4-7. Common ion concentrations (mg/L) in lysimeters of the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2015.

Site	Alkalinity (as $CaCO_3$)	Bicarbonate Alkalinity (as HCO_3)	Calcium	Chloride	Hardness (as $CaCO_3$)	Magnesium	Potassium	Sodium	Sulfate
May									
LYS-06*	50	60	216	31	693	37	ND	238	1170
LYS-01	150	180	80	20	273	18	2	30	189
LYS-02	560	680	323	37	1550	181	2	2240	6130
LYS-03	DNA	DNA	38	DNA	123	7	3	43	DNA
LYS-04	250	290	104	4	408	36	12	156	484
LYS-05	260	310	442	5	1650	133	22	1110	4220
LYS-07	DNA	DNA	245	DNA	877	64	9	701	DNA
LYS-08	340	410	196	62	904	101	6	126	800
September									
LYS-06*	62	75	166	10	540	31	ND	195	934
LYS-01	170	210	96	21	326	21	3	36	182
LYS-02	770	940	430	98	2250	286	3	3360	9090
LYS-03	240	290	68	ND	227	14	3	69	124
LYS-04	270	330	102	4	401	35	15	166	452
LYS-05	250	310	429	5	1610	131	22	1070	3970
LYS-07	DNA	DNA	281	DNA	988	70	10	689	DNA
LYS-08	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA	DNA

* Background lysimeter.

DNA Not sampled due to insufficient sample volume.

ND Not detected at analytical reporting limit.

4.4.1 Arsenic

In 2015, arsenic concentrations in each MWRR lysimeter were similar to prior years [Figure 4-2]. Based on the paired *t*-test results, there was evidence (*p*-values were ≤0.0002) that mean arsenic concentrations in lysimeters LYS-02, LYS-04, LYS-05, and LYS-07 were higher than in the background lysimeter [Table 4-8]. LYS-04 had a mean concentration 0.068 mg/L higher than in the background lysimeter [Table 4-8].

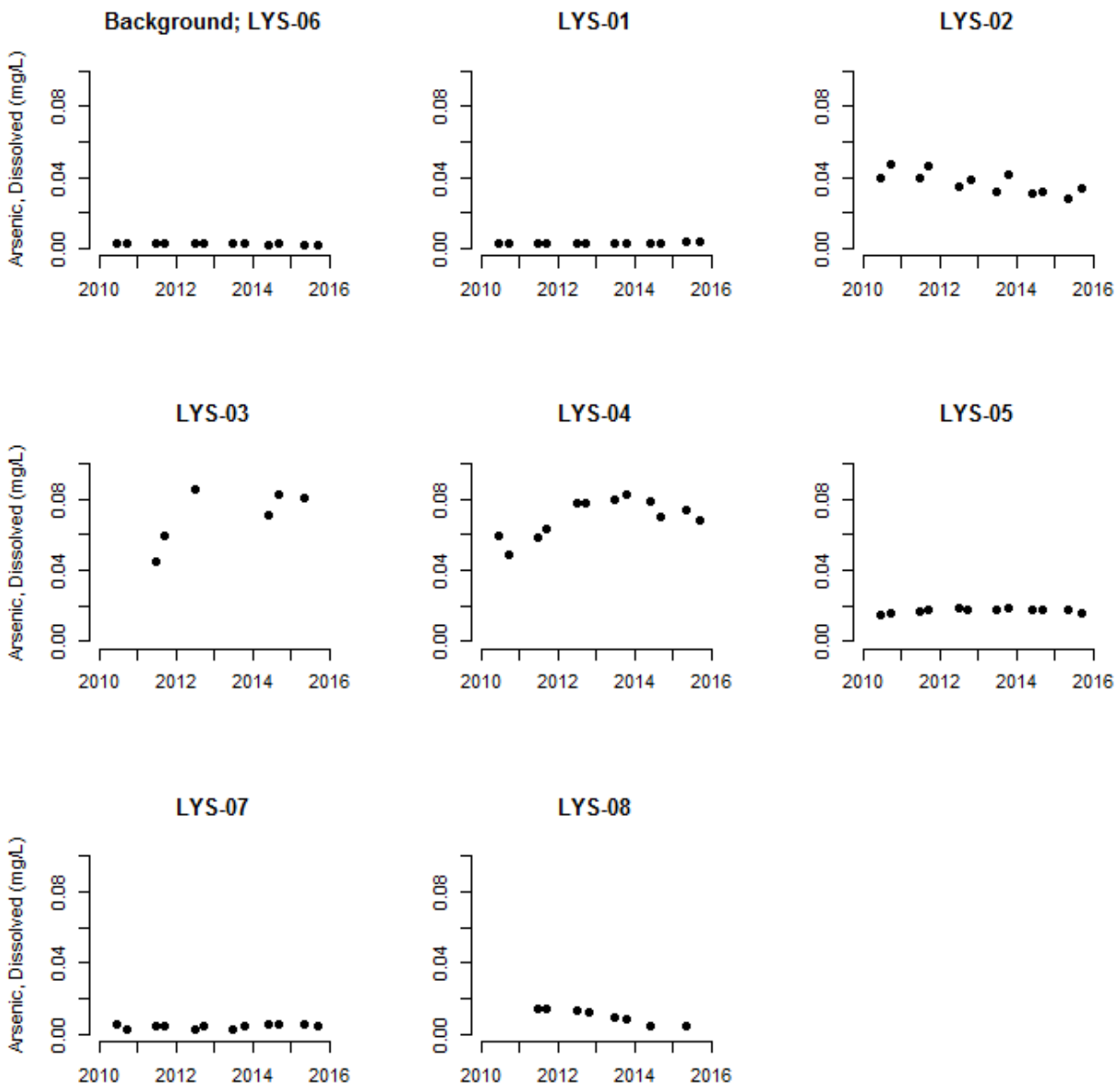

Figure 4-2. Arsenic concentrations in lysimeters of the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2010-2015. Samples below the analytical reporting limit (RL) are represented as half the RL.

4.4.2 Cadmium

In 2015, cadmium concentrations in each MWRR lysimeter were similar to prior years with the exception of LYS-08 which had relatively high cadmium concentration (0.00021 mg/L) in May 2015 [Figure 4-3]. With the exception of LYS-08, no lysimeters appeared to have increasing cadmium concentrations [Figure 4-3]. LYS-08 did not have sufficient sample volume in September for analysis of COC concentrations. Based on the paired *t*-test results, there was evidence (*p*-value <0.0001) that mean cadmium concentration in lysimeter LYS-05 was 0.00020 mg/L higher than in the background lysimeter [Table 4-8]. There was also evidence that mean cadmium concentrations in LYS-02 (*p*-value = 0.0066) and LYS-07 (*p*-value = 0.0096) were higher than in the background lysimeter, but only by a relatively small amount (0.00005 mg/L and 0.00004 mg/L for each respectively) [Table 4-8].

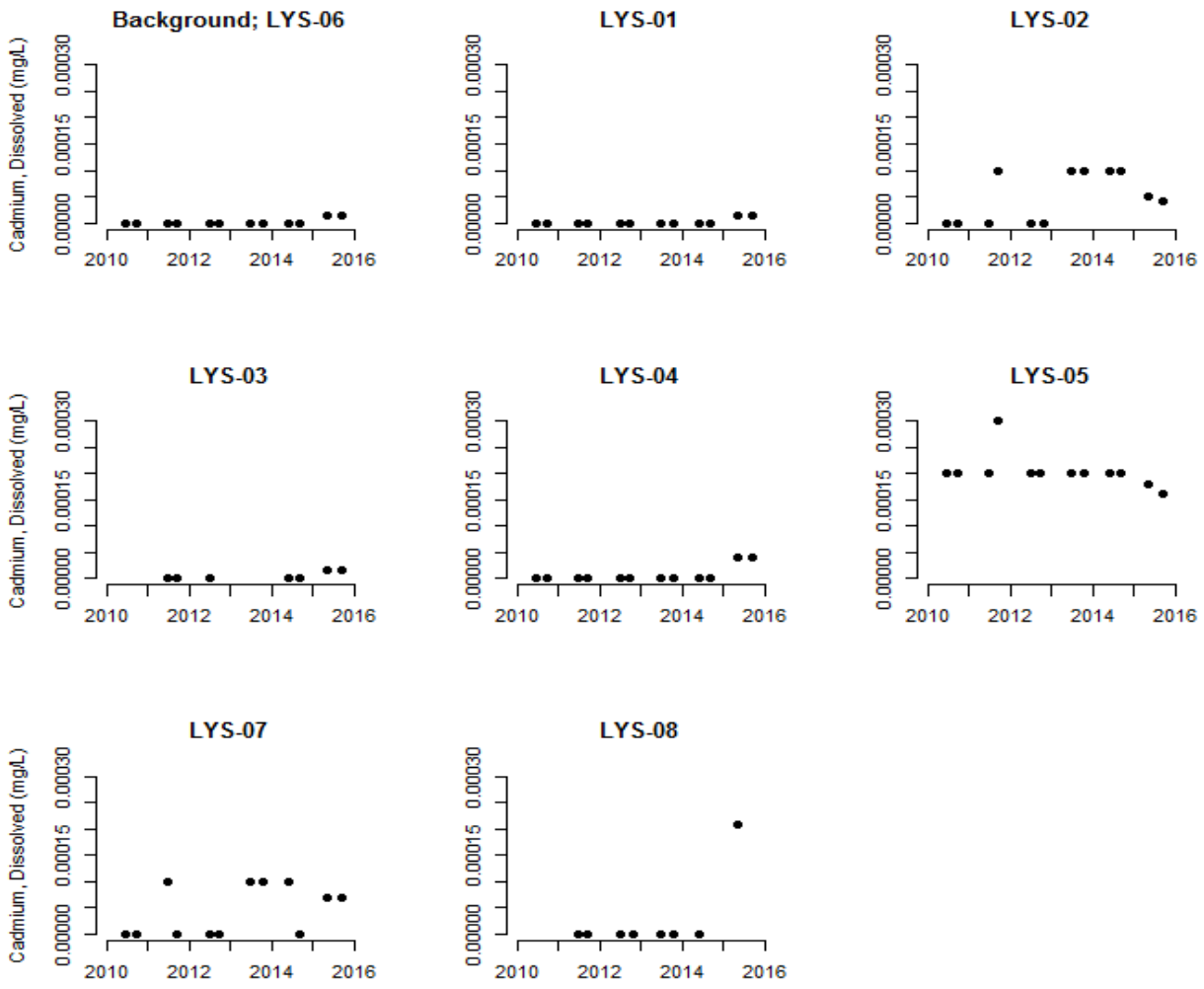

Figure 4-3. Cadmium concentrations in lysimeters of the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2010-2015. Samples below the analytical reporting limit (RL) are represented as half the RL.

4.4.3 Copper

In 2015, copper concentrations in each MWRR lysimeter were similar to prior years [Figure 4-4]. Based on the paired *t*-test results, there was evidence (*p*-value = 0.0003) that mean copper concentration in lysimeter LYS-05 was 0.006 mg/L higher than in the background lysimeter [Table 4-8]. There was also some evidence that mean copper concentrations in LYS-04 (*p*-value = 0.0282) was slightly higher (0.002 mg/L) than in the background lysimeter [Table 4-8]. However, some monitoring lysimeters had slightly lower (-0.002 mg/L) mean copper concentrations compared to background, specifically LYS-01 (*p*-value = 0.0037) and LYS-07 (*p*-value = 0.0451) [Table 4-8].

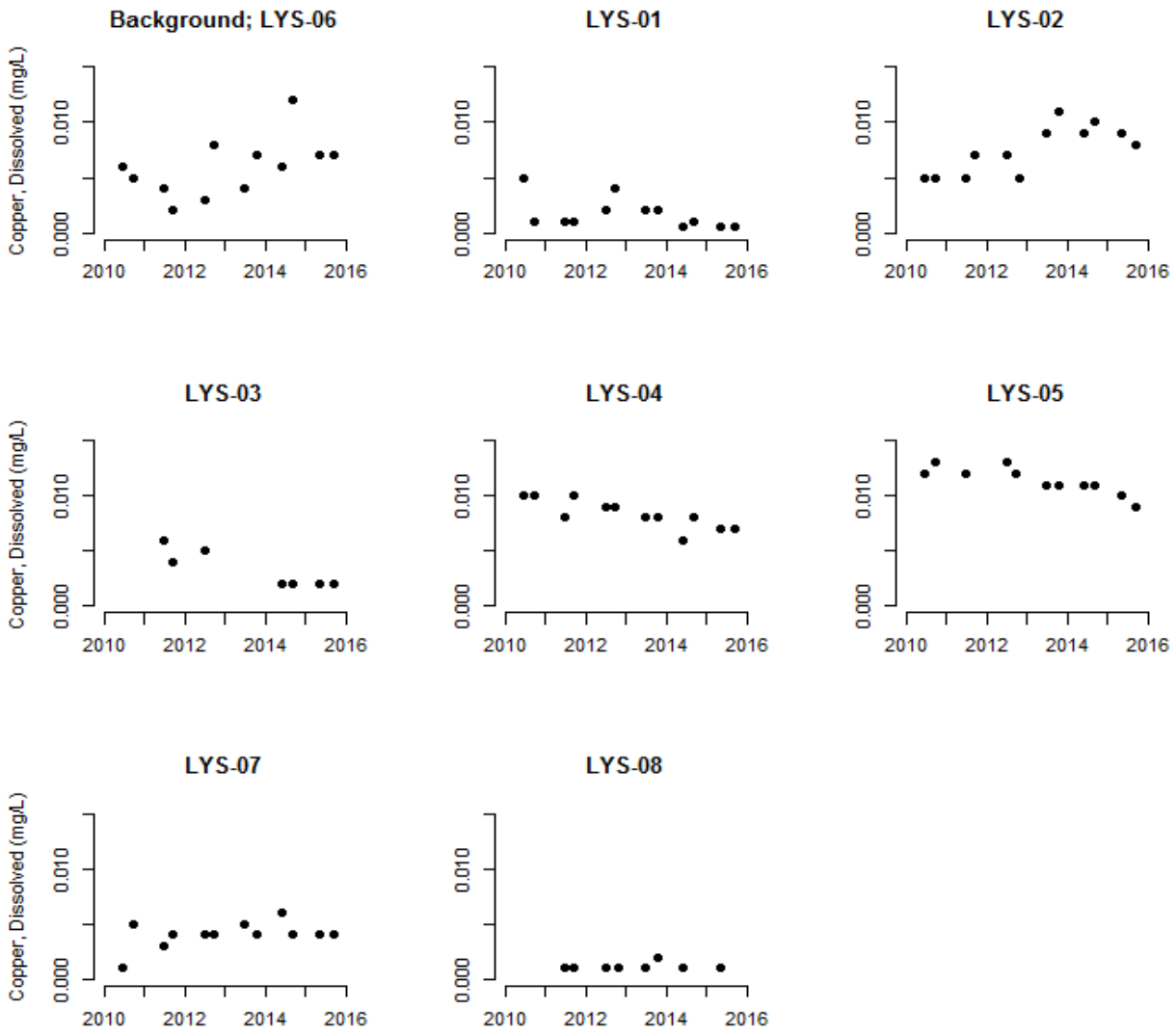

Figure 4-4. Copper concentrations in lysimeters of the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2010-2015. Samples below the analytical reporting limit (RL) are represented as half the RL.

4.4.4 Lead

In 2015, lead concentrations in each MWRR lysimeter were similar to prior years [Figure 4-5]. No lysimeters appeared to have increasing lead concentrations [Figure 4-5]. Based on the paired *t*-test results, there was no evidence (all *p*-values >0.3) that mean lead concentration in any monitoring lysimeter was higher than in the background lysimeter [Table 4-8].

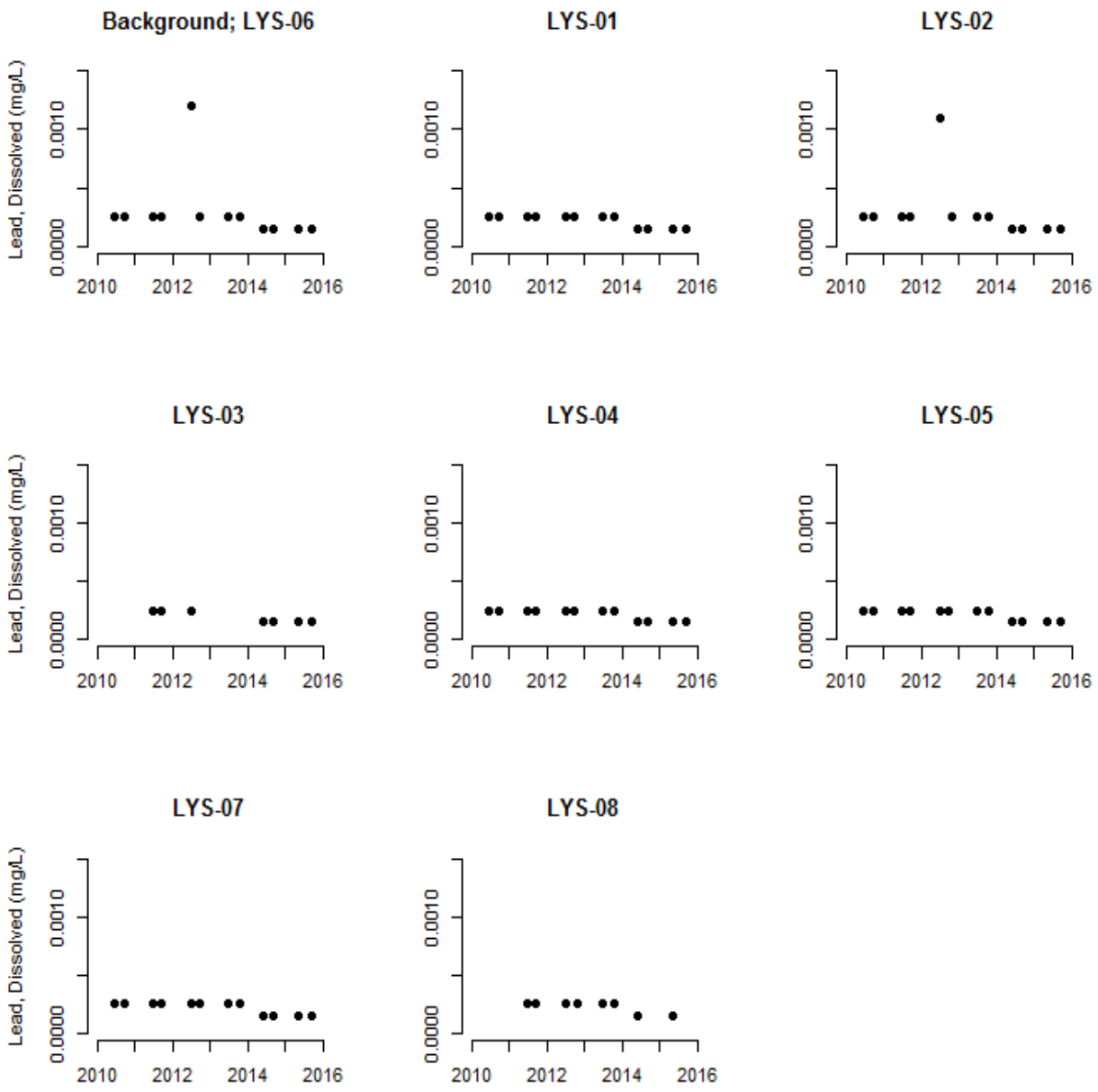

Figure 4-5. Lead concentrations in lysimeters of the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2010-2015. Samples below the analytical reporting limit (RL) are represented as half the RL.

4.4.5 Mercury

In 2015, mercury concentrations in each MWRR lysimeter were similar to prior years [Figure 4-6]. No lysimeters appeared to have increasing mercury concentrations [Figure 4-6]. Based on the paired *t*-test results, there was no evidence (all *p*-values >0.17) that mean mercury concentration in any monitoring lysimeter was higher than in the background lysimeter [Table 4-8].

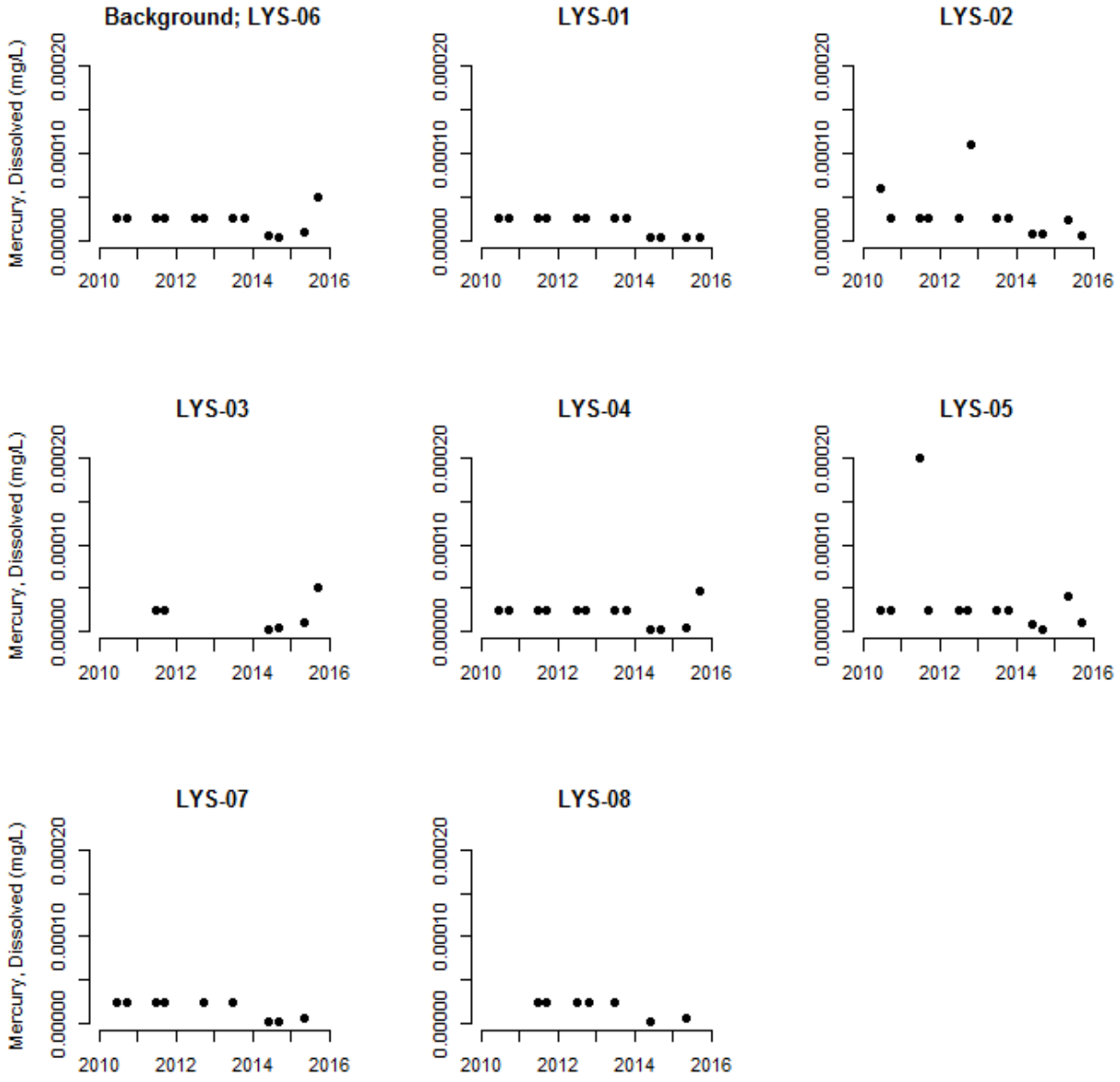

Figure 4-6. Mercury concentrations in lysimeters of the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2010-2015. Samples below the analytical reporting limit (RL) are represented as half the RL.

4.4.6 Zinc

In 2015, zinc concentrations in each MWRR lysimeter were similar to prior years [Figure 4-7]. No lysimeters appeared to have increasing zinc concentrations [Figure 4-7]. Based on the paired *t*-test results, there was no evidence (all *p*-values >0.05) that mean zinc concentration in any monitoring lysimeter differed from background [Table 4-8].

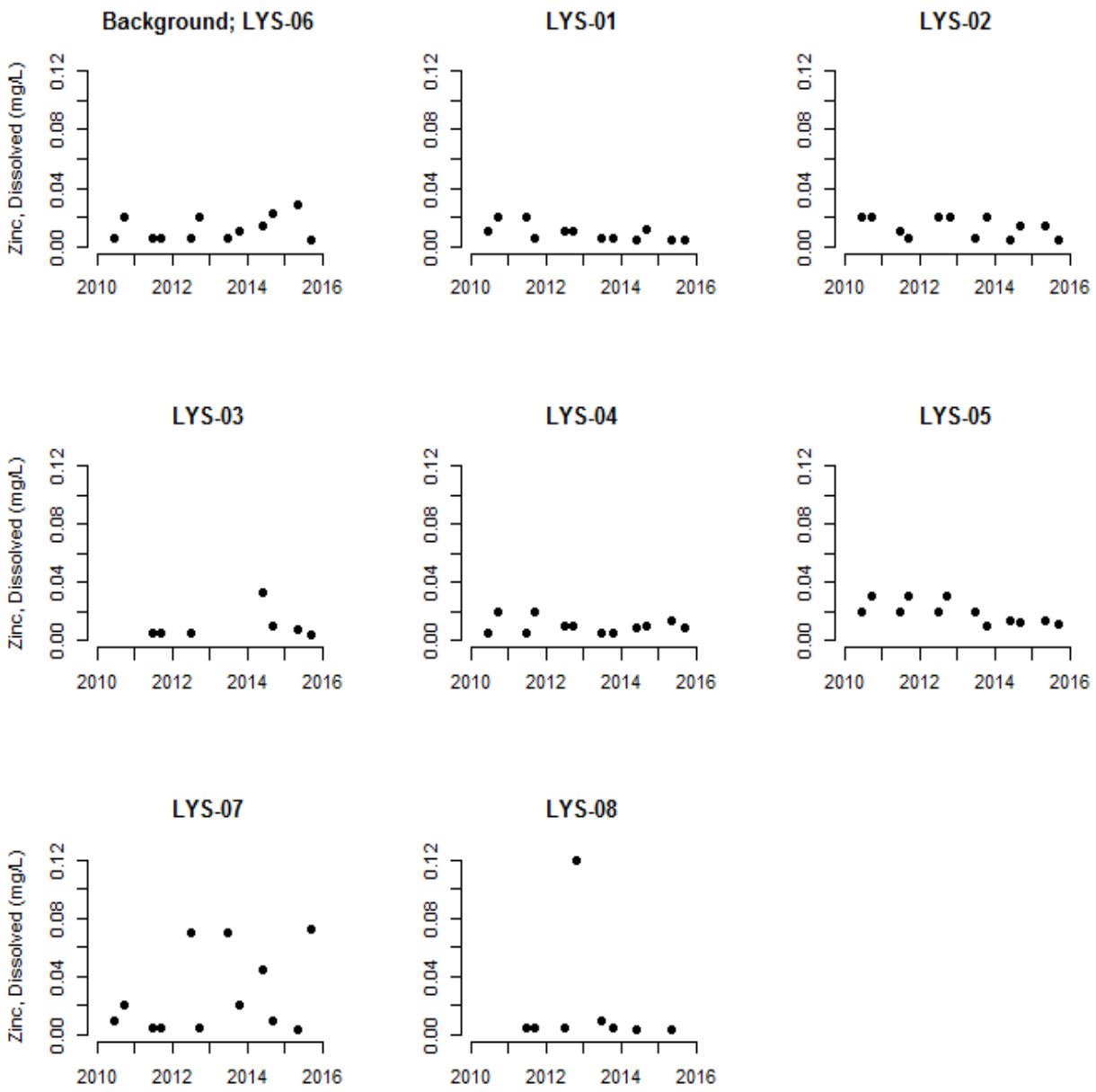

Figure 4-7. Zinc concentrations in lysimeters of the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2010-2015. Samples below the analytical reporting limit (RL) are represented as half the RL.

Table 4-8. Results of paired *t*-tests comparing mean concentrations in monitoring lysimeters to concentrations in background lysimeters in the vicinity of the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2010-2015.

Contaminant of concern	Monitoring lysimeter	*t*-statistic	*p*-value[20]	Difference from background (mean; mg/L)
Arsenic	LYS-01	1.820	0.0960	0.000
	LYS-02	20.082	<0.0001***	0.035
	LYS-04	21.805	<0.0001***	0.068
	LYS-05	42.133	<0.0001***	0.015
	LYS-07	5.349	0.0002***	0.002
Cadmium	LYS-01^	---	---	0.00000
	LYS-02	3.343	0.0066**	0.00005
	LYS-04^	1.483	0.1661	0.00000
	LYS-05	19.335	<0.0001***	0.00020
	LYS-07	3.128	0.0096**	0.00004
Copper	LYS-01	-4.929	0.0005***	-0.004
	LYS-02	2.022	0.0682	0.002
	LYS-04	2.525	0.0282*	0.002
	LYS-05	5.115	0.0003***	0.006
	LYS-07	-2.260	0.0451*	-0.002
Lead	LYS-01	-1.000	0.3388	0.000
	LYS-02	-1.000	0.3388	0.000
	LYS-04	-1.000	0.3388	0.000
	LYS-05	-1.000	0.3388	0.000
	LYS-07	-1.000	0.3388	0.000
Mercury	LYS-01	-1.220	0.2479	-0.000005
	LYS-02	0.931	0.3720	0.000008
	LYS-04	-1.910	0.0825	-0.000001
	LYS-05	0.916	0.3793	0.000014
	LYS-07	-1.506	0.1705	-0.000001
Zinc	LYS-01	-1.034	0.3235	-0.003
	LYS-02	0.375	0.7150	0.001
	LYS-04	-0.791	0.4456	-0.002
	LYS-05	2.143	0.0553	0.007
	LYS-07	1.661	0.1249	0.016

^ All sample concentrations in the background and monitoring well were below the analytical detection limit.

[20] Significance codes: * = 0.05-0.1, ** = 0.01-0.001, *** <0.001.

4.5 DISCUSSION

4.5.1 Contaminants of Concern

In general, each COC concentration in each lysimeter was similar in 2015 to prior monitoring years indicating that there is relatively little inter-annual variability in vadose zone COC concentrations in the MWRR. One exception to this trend was cadmium in LYS-08, which was considerably higher in May 2015 than in prior monitoring periods. This lysimeter was again monitored in September 2015 but sample volume was insufficient for analysis of COC concentrations at that time. Cadmium concentration in LYS-08 will be monitored again in 2016. No other COCs had particularly high concentrations in May 2015.

Based on the six year time series at each lysimeter, there generally do not appear to be increasing COC concentrations at any of these lysimeters. A formal statistical analysis (e.g., simple linear regression) might provide some insight about whether these apparent relationships (between COC concentrations and time) in these lysimeters were statistically significant. However, it would be important to understand that such an analysis would only apply to the observed time period and therefore would provide limited insight into the likelihood that those trends would continue through time. Extrapolation of temporal trends in COC concentrations from the 2010-2015 time period to more extended time periods (e.g., through 2030) may not be appropriate.

Statistical tests (paired *t*-tests) were applied to compare mean COC concentrations in each monitoring lysimeter to the background lysimeter to assess if there were statistically significant differences in concentrations given the variation in the data. Of particular interest would be those lysimeters with mean concentrations which are higher than in the background lysimeter. Arsenic concentrations were higher compared to background in lysimeters LYS-02, LYS-04, LYS-05, and LYS-07; cadmium concentrations were higher compared to background in lysimeters LYS-02, LYS-05, and LYS-07; and copper concentrations were higher compared to background in lysimeters LYS-04 and LYS-05.

Although these data support the conclusion that arsenic, cadmium, and copper concentrations are elevated in some monitoring lysimeters compared to the background lysimeter, the question of whether or not a single background lysimeter adequately represents background COC concentrations in the soil outside of the MWRR is not addressed. One method to reduce potential bias in the background COC concentrations associated with the small number of background sample sites (n = 1) would be to increase the number of background lysimeters. However, increasing the number of background lysimeters would not address the issue of causation. Even with additional background lysimeters, the question of whether differences in COC concentrations between background and monitoring samples were caused by leaching of COCs from the MWRR or by inherent differences in concentrations in soils sampled by those particular lysimeters would remain uncertain.

Vadose zone sampling is conducted to provide advance notice in the event that there are releases of COCs from the repository which might threaten groundwater or surface water. Arsenic concentrations in LYS-02, LYS-03, LYS-04, and LYS-05 during both sample periods of 2015 exceeded the human health groundwater standard (0.01 mg/L; MDEQ [2012a]) and these

concentrations are consistent with prior monitoring. However, arsenic was the only COC to exceed the human health groundwater standard at groundwater monitoring wells located in the vicinity of the MWRR in 2015 and that exceedance occurred in the background well. In 2015, all surface water sample sites in Subareas 1 had arsenic concentrations that were below the most restrictive standard. Therefore, it does not appear that arsenic leaching from the MWRR into vadose zone water currently impedes either groundwater or surface water performance goals. Further vadose zone monitoring will be conducted to determine whether there is a trend that suggests releases of COCs from the repository may be occurring.

4.5.2 Data Validation

Quality assurance and quality control results for vadose zone water are combined with groundwater (see Sections 3.4.3 and 3.5.3).

5.0 MACROINVERTEBRATES[21]

5.1 INTRODUCTION

Silver Bow Creek is a tributary to the Clark Fork River that extends from Butte, Montana approximately 23 miles downstream to the Warm Springs Ponds just north of Opportunity, Montana. Silver Bow Creek was impacted by mining waste and municipal sewage inputs from the 1870s through the 1980s. The earliest impacts resulted from underground mining and included waste rock, slag, and mill tailings that were deposited directly into the stream. In 1908 a major flood redistributed the waste rock and tailings downstream throughout the channel and flood plain. Mining efforts in the area shifted to open-pit operations with the 1955 opening of the Berkeley Pit mine near Butte. Open-pit mining ceased in the Berkeley Pit in 1982; however, copper precipitate is currently mined from the waters of the Berkeley Pit and mining continues in the nearby Continental Pit (molybdenum and copper). The ancestral headwaters of Silver Bow Creek have now been entirely subsumed into the Berkeley and Continental Pits and the city of Butte metro sewer system.

Currently Silver Bow Creek and its adjacent floodplain are undergoing remediation that includes excavation and removal of tailings and impacted soils from the floodplain, replacement of the removed tailings with local fill material, seeding and planting of vegetation, and reconstruction of the stream channel. The portion of the creek and its adjacent floodplain undergoing remediation is designated the Streamside Tailings Operable Unit (SSTOU) and is divided into four subareas. Remediation has already been accomplished in some subareas. A plan was established to monitor several factors as remediation progressed including surface water, instream sediments, geomorphology, groundwater, and aquatic biologic resources. Aquatic invertebrates are major components of the biota present in Silver Bow Creek and thus play important roles in the comprehensive monitoring plan. General performance goals have been stated for aquatic invertebrates in Silver Bow Creek: the assemblages should reflect a "balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of the natural habitat of the region" [Karr and Dudley, 1981].

This report describes the analysis of a subset of the aquatic invertebrate monitoring program, specifically the samples collected from Silver Bow Creek in 2015. The benthic invertebrate fauna was analyzed with a number of biointegrity metrics which were combined into three indices, the Montana Valley and Foothill Prairies (MVFP) bioassessment index which was developed to evaluate the biological integrity of montane streams [Bollman, 1998], the Hilsenhoff Biotic Index [Hilsenhoff, 1987], which has a long history in biomonitoring studies, and the metals tolerance index [McGuire, 2009], which is specifically designed to examine metal pollution. In addition, the taxonomic and functional composition of the benthic fauna was

[21] Chapter 5 was completed by Billie Kerans and Wease Bollman of Rhithron Associates with minor editing and formatting by RESPEC.

investigated to gain information about probable stressors to water quality and habitat integrity. This information is described in a series of site-specific narratives.

5.2 METHODS

5.2.1 Sampling

Aquatic invertebrates were sampled at 17 sites in the Silver Bow Creek watershed [Table 5-1] from September 8-9, 2015. Samples were delivered to Rhithron Associates, (Missoula, Montana) for processing and identification. Field work included habitat assessments: 10 habitat parameters were visually assessed and subjectively rated on a numeric scale. Ratings for each parameter were summed to obtain a total score for each sampled site.

Table 5-1. Macroinvertebrate sampling locations in the Streamside Tailings Operable Unit, September 8-9, 2015.

Site ID	Site Location	Location (GPS coordinates, NAD 83)	
		Latitude	Longitude
SS-01	Blacktail Creek at Father Sheehan Park	45.98532	-112.50772
SS-05A	Silver Bow Creek above Butte Reduction Works	45.99653	-112.54343
SS-06G	Silver Bow Creek above WWTP	45.99458	-112.55146
SS-07	Silver Bow Creek below WWTP	45.99648	-112.56316
SS-08	Silver Bow Creek at Rocker	45.99679	-112.56470
SS-10A	Silver Bow Creek above Sand Creek	46.00167	-112.60490
SS-10B	Silver Bow Creek below Sand Creek	46.00375	-112.66084
SS-11C	Silver Bow Creek above Browns Gulch	46.00429	-112.66160
SS-11D	Silver Bow Creek below Browns Gulch	46.00336	-112.70172
SS-13	Silver Bow Creek in Reach L	46.00342	-112.70304
SS-14	Silver Bow Creek at Miles Crossing	46.00647	-112.71394
SS-15A	Silver Bow Creek above German Gulch	46.01142	-112.72270
SS-15B	Silver Bow Creek below German Gulch	46.02170	-112.78969
SS-15G	German Gulch near confluence	46.02263	-112.79175
SS-16	Silver Bow Creek in Reach P near Fairmont	46.02170	-112.79029
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	46.05494	-112.79611
SS-19	Silver Bow Creek at Frontage Road	46.10787	-112.80553

5.2.2 Laboratory Analysis

Subsamples of 300 (±20%) organisms were obtained using methods consistent with Montana Department of Environmental Quality (MDEQ) standard procedures [MDEQ, 2012c] Caton sub-sampling devices [Caton, 1991], divided into 30 grids, each approximately 6 cm by 6 cm were used. Each individual sample was thoroughly mixed in its jar(s), poured out and evenly spread

into the Caton tray, and individual grids were randomly selected. The contents of each grid were examined under stereoscopic microscopes using 10-30x magnification. All aquatic invertebrates from each selected grid were sorted from the substrate, and placed in 80% ethanol for subsequent identification. Grid selection, examination, and sorting continued until at least 300 (±20%) organisms were sorted. The final grid was completely sorted of all organisms. All unsorted sample fractions were retained and stored at the Rhithron laboratory.

Organisms were individually examined by certified taxonomists, most using 10-80x stereoscopic dissecting scopes (Leica S8E) and identified to the lowest practical level consistent with MDEQ [MDEQ, 2012c] data requirements, using appropriate published taxonomic references and keys. After slide-mounting, representative specimens of midges and worms were further examined at 200-1000x magnification using an Olympus BX 51 compound microscope.

Identification, counts, life stages, and information about the condition of specimens were recorded on electronic bench sheets. Organisms that could not be identified to the taxonomic targets because of immaturity, poor condition, or lack of complete current regionally-applicable published keys were left at appropriate taxonomic levels that were coarser than those specified. To obtain accuracy in richness measures, these organisms were designated as "not unique" if other specimens from the same group could be taken to target levels. Organisms designated as "unique" were those that could be definitively distinguished from other organisms in the sample. Identified organisms were preserved in 80% ethanol in labeled vials, and archived at the Rhithron laboratory along with slide-mounted organisms.

5.2.3 Quality Assurance Systems

Quality control (QC) procedures for initial sample processing and subsampling involved checking sorting efficiency. These checks were conducted on 100% of the samples by independent technicians who microscopically re-examined at least 25% of sorted substrate from each sample. Quality control procedures for each sample proceeded as follows:

The quality control technician poured the sorted substrate from a processed sample out into a Caton tray, redistributing the substrate so that 25% of it could be accurately lifted out by removing entire grids in a random fashion. Grids were selected, and re-examined until 25% of the substrate was re-sorted. All organisms that were missed were counted and this number was added to the total number obtained in the original sort. Sorting efficiency was evaluated by applying the following calculation:

$$SE = \frac{n_1}{n_1 + n_2} \times 100$$

where: SE is the sorting efficiency (%), n_1 is the total number of specimens in the first sort, and n_2 is the total number of specimens expected in the second sort, based on the results of the re-sorted 25%.

Quality control procedures for taxonomic determinations of invertebrates involved checking accuracy, precision and enumeration. Two samples were randomly selected and all organisms re-identified and counted by an independent taxonomist. Taxa lists and enumerations were

compared by calculating a Bray-Curtis similarity statistic [Bray and Curtis, 1957] for each selected sample. The percent taxonomic disagreement (PTD) and percent difference in enumeration (PDE) were also calculated. Routinely, discrepancies between the original identifications and the QC identifications are discussed among the taxonomists, and necessary rectifications to the data are made. Discrepancies that cannot be rectified by discussions are routinely sent out to taxonomic specialists for identification. However, taxonomic certainty for identifications in this project was high and no external verifications were necessary.

5.2.4 Data Analysis

For aquatic invertebrates, taxa lists and counts for each sample were constructed. Approximately 72 standard metric expressions of taxonomic, function and habit characters, and tolerance attributes were calculated, using customized database software. Aquatic invertebrate metrics included the Hilsenhoff Biotic Index (HBI), with tolerance values and impact threshold modified for Montana fauna [McGuire, 2010], and the Metals Tolerance Index (MTI) which was developed by McGuire [2010] for the Clark Fork River watershed. Table 5-2 shows scoring criteria applied by McGuire for these metrics.

Table 5-2. Hilsenhoff Biotic Index (HBI) and Metals Tolerance Index (MTI): Metrics modified and developed by McGuire [2010] for assessing biological integrity in the Clark Fork River basin.

Metric	"no impact" ----------"severe impact"						
HBI	< 4.0	4.0 – 4.5	4.6 – 5.1	5.2 – 5.7	5.8 – 6.3	6.4 – 6.9	> 6.9
MTI	< 4.0	4.0 – 4.9	5.0 – 5.9	6.0 – 6.9	7.0 – 7.9	8.0 – 8.9	> 8.9

Six calculated metrics [Table 5-3] were combined into the Montana Valley and Foothill Prairies (MVFP) bioassessment index [Bollman, 1998]. The MVFP index is a quantitative measure which may be useful in assessing progress toward attainment of the general goal of a "balanced, integrated, adaptive community" of aquatic invertebrates, as envisioned by Karr and Dudley [1981]. To arrive at an MVFP index score and impairment classification, each component metric value is calculated, based on the taxonomic, functional, and tolerance attributes of the aquatic invertebrate assemblage, and categorical scores are assigned to each metric. Metric scores are summed for a total score, which is expressed as a percentage of the maximum total score.

Table 5-3. Component metrics and scoring scheme for the aquatic invertebrate-based Montana Valley and Foothill Prairies (MVFP) bioassessment index [Bollman, 1998].

Metric	Metric score			
	3	2	1	0
	Metric values			
Ephemeroptera richness	>5	5 – 4	3 – 2	<2
Plecoptera richness	>3	3 – 2	1	0
Trichoptera richness	>4	4 – 3	2	<2
Number of sensitive taxa	>3	3 – 2	1	0
Percent filterers	0 - 5	5.01 – 10	10.01 – 25	>25
Percent tolerant taxa	0 - 5	5.01 - 10	10.01 - 35	>35

5.2.5 Ecological Interpretations: Approach

We use narrative interpretations of taxonomic and functional composition of invertebrate assemblages to reveal the probable stressors in the SSTOU. Often canonical procedures are used for stressor identification; however, the substantial data required for such procedures (e.g., surveys of habitat, historical and current data related to water quality, land use, point and non-point source influences, soils, hydrology, geology) were not readily available for this study. Instead our narrative interpretations are based on demonstrated associations between assemblage components and habitat and water quality variables gleaned from the published literature, the authors' own research and professional judgment, and the research and professional judgment of other expert sources. We did not refer to habitat assessments or any other SSTOU data while crafting these narratives.

We use attributes of invertebrate taxa that are well substantiated in diverse literature and that are generally accepted by regional aquatic ecologists as evidence of water quality and instream and reach-scale habitat conditions. The approach to this analysis uses some assemblage attributes that are interpreted as evidence of water quality and other attributes that are interpreted as evidence of habitat integrity. To arrive at impairment classifications, attributes are considered individually, so information is maximized by not relying on a single cumulative score, which may mask stress on the biota. Such an approach also minimizes the possibility of using inappropriate assessment strategies when the biota at a site is atypical of "characteristic" sites in a region. Below we describe the invertebrate attributes that were used and their relationships to water quality and habitat conditions.

Mayfly taxa richness, the Hilsenhoff Biotic Index (HBI) value [Hilsenhoff, 1987], the richness and abundance of hemoglobin-bearing taxa and the richness of sensitive taxa are often used as indicators of water quality. Mayfly taxa richness has been demonstrated to be significantly correlated with chemical measures of dissolved oxygen, pH, and conductivity (e.g., Fore et al. [1996], Wisseman [1996]; Bollman [1998]). The HBI has a long history of use and validation [Cairns and Pratt, 1993; Smith and Tran, 2010; Johnson and Ringler, 2014]. In Montana foothills, the HBI was demonstrated to be significantly associated with conductivity, pH, water

temperature, sediment deposition, and the presence of filamentous algae [Bollman, 1998]. Nutrient enrichment in Montana streams often results in large crops of filamentous algae [Watson, 1988]. Thus in these samples, when macroinvertebrates associated or dependent on filamentous algae (e.g., LeSage and Harrison [1980]; Anderson [1976]) are abundant, the presence of filamentous algae and nutrient enrichment are also suspected. Sensitive taxa exhibit intolerance to a wide range of stressors (e.g., Wisseman [1996]; Hellawell [1986]; Friedrich [1990]; Barbour et al. [1999]), including nutrient enrichment, acidification, thermal stress, sediment deposition, habitat disruption, and others. These taxa are expected to be present in predictable numbers in functioning montane and foothills streams (e.g., Bollman [1998]). Although the abundance of invertebrates in Hess samples can be highly variable, reflecting the patchy and dynamic areal distribution of the benthos in stony-bottomed streams, McGuire's thresholds for environmental perturbation [McGuire, 2010] are cited as evidence of enrichment or impairment.

The richness and abundance of cold stenotherm taxa [Clark, 1997] and calculation of the temperature preference of the macroinvertebrate assemblage [Brandt, 2001] can predict the thermal characteristics of the sampled site. Hemoglobin-bearing taxa are also indicators of warm water temperatures [Walshe, 1947], since dissolved oxygen is directly associated with water temperature; oxygen concentrations can also vary with the degree of nutrient enrichment. Increased temperatures and high nutrient concentrations can, alone or in concert, create conditions favorable to hypoxic sediments, habitats preferred by hemoglobin-bearers.

The absence of invertebrate groups known to be sensitive to metals and the Metals Tolerance Index [Bukantis, 1998] are considered signals of possible metals contamination. Metals sensitivity for some groups, especially the heptageniid mayflies, is well-known (e.g., Kiffney and Clements [1994]; Clements [1999]; Clements [2004]; Montz et al. [2010]; Iwasaki et al. [2013]). In the present approach, the absence of these groups in environs where they are typically expected to occur is considered a signal of possible metals contamination, but only when combined with a measure of overall assemblage tolerance of metals. The Metals Tolerance Index ranks taxa according to their sensitivity to metals. Weighting taxa by their abundance in a sample, assemblage tolerance is estimated by averaging the tolerance of all sampled individuals.

Characteristics of the macroinvertebrate assemblages can also reveal the condition of instream and streamside habitats. Stress from sediment is evaluated by caddisfly richness and by "clinger" richness [Kleindl, 1995; Bollman, 1998; Karr and Chu, 1999; Wagenhoff et al., 2012; Leitner et al., 2015]. A newer tool, the Fine Sediment Biotic Index (FSBI) [Relyea et al., 2012] shows promise when applied to the montane and foothills regions. This index and its interpretation are modified in this report, based on the author's professional judgment, to more effectively characterize the SSTOU in the sampled reaches.

The functional characteristics of macroinvertebrate assemblages are based on the morphology and behaviors associated with feeding, and are interpreted in terms of the River Continuum Concept [Vannote et al., 1980] in the narratives. Alterations from predicted patterns in montane and foothills streams may be interpreted as evidence of water quality or habitat

disruption. For example, shredders and the microbes they depend on are sensitive to modifications of the riparian zone [Plafkin et al., 1989].

5.3 RESULTS

5.3.1 Quality Assurance Systems

Results of internal quality control procedures for subsampling and taxonomy for aquatic invertebrate samples are given in Table 5-4. Sorting efficiency averaged 96.8% over the 17 samples in this project. The similarity between original identifications and enumerations for the two quality control samples averaged 99.1%. Percent taxonomic disagreement (PTD) averaged 1.3%, and the Percent difference in enumeration (PDE) averaged 0.4%. Rhithron's internal quality standards, consistent with industry norms are: for sorting efficiency, ≥95%; for Bray-Curtis similarity, ≥95%; for PTD, ≤5%; and for PDE, ≤5% [Stribling et al., 2003].

Table 5-4. Results of quality assurance systems parameters for aquatic invertebrate samples. Silver Bow Creek watershed, September 8-9, 2015.

Site ID	Station name	Sorting efficiency (%)	Bray-Curtis similarity (%)	Percent taxonomic disagreement (%)	Percent difference in enumeration (%)
SS-01	Blacktail Creek at Father Sheehan Park	97.55			
SS-05A	Silver Bow Creek above Butte Reduction Works	98.77			
SS-06G	Silver Bow Creek above Butte WWTP	98.73	99.49	0.68	0.17
SS-07	Silver Bow Creek below Butte WWTP	96.35			
SS-08	Silver Bow Creek at Rocker	93.06			
SS-10A	Silver Bow Creek above Sand Creek	90.91			
SS-10B	Silver Bow Creek below Sand Creek	96.47			
SS-11C	Silver Bow Creek above Browns Gulch	96.44			
SS-11D	Silver Bow Creek below Browns Gulch	100.00			
SS-13	Silver Bow Creek in Reach L	100.00			
SS-14	Silver Bow Creek at Miles Crossing	100.00			
SS-15A	Silver Bow Creek above German Gulch	100.00	98.75	1.87	0.63
SS-15B	Silver Bow Creek below German Gulch	100.00			
SS-15G	German Gulch near confluence	95.14			
SS-16B	Silver Bow Creek in Reach P near Fairmont	100.00			
SS-17D	Silver Bow Creek below Stewart St Opportunity	92.05			
SS-19	Silver Bow Creek at Frontage Road	90.06			

5.3.2 Bioassessment

Values for the six MVFP aquatic invertebrate metrics are shown in Table 5-5. MVFP scores and associated impairment classifications are given in Table 5-6. Figure 5-1 graphs the 2015 MVFP scores, as percent of maximum possible score, for all sites in the study. One site, SS-15G (German Gulch near confluence) was rated slightly impaired. Eleven of the 17 sites were moderately impaired, and five sites were severely impaired. Sites with severe impairment (SS-06G, SS-07, SS-11D, SS-15A, and SS-16B) generally exhibited very low abundance and richness among mayflies along with high proportions of filter-feeders or tolerant taxa, or both.

Table 5-5. Montana Valley and Foothill Prairies [Bollman, 1998] metric results: Silver Bow Creek, September 8-9, 2015.

Site ID	Site Location	Metric					
		Ephemeroptera richness	Plecoptera richness	Trichoptera richness	Number of sensitive taxa	Percent filterers	Percent tolerant taxa
SS-01	Blacktail Creek at Father Sheehan Park	1	0	3	0	9.2	28.6
SS-05A	Silver Bow Creek above Butte Reduction Works	1	0	5	1	3.8	27.0
SS-06G	Silver Bow Creek above WWTP	1	0	4	0	31.7	52.3
SS-07	Silver Bow Creek below WWTP	0	0	0	0	13.2	47.0
SS-08	Silver Bow Creek at Rocker	0	0	3	0	10.3	18.3
SS-10A	Silver Bow Creek above Sand Creek	3	0	2	0	22.9	26.2
SS-10B	Silver Bow Creek below Sand Creek	3	0	2	0	5.9	24.2
SS-11C	Silver Bow Creek above Browns Gulch	3	0	5	0	45.9	38.8
SS-11D	Silver Bow Creek below Browns Gulch	3	0	4	0	51.4	51.1
SS-13	Silver Bow Creek in Reach L	0	0	5	0	66.7	31.1
SS-14	Silver Bow Creek at Miles Crossing	2	0	7	0	48.4	33.2
SS-15A	Silver Bow Creek above German Gulch	1	0	4	0	47.3	16.9
SS-15B	Silver Bow Creek below German Gulch	3	2	6	1	56.6	13.1
SS-15G	German Gulch near confluence	6	3	7	1	8.2	9.1
SS-16B	Silver Bow Creek in Reach P near Fairmont	1	0	5	0	29.0	50.3
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	0	0	6	0	60.3	29.7
SS-19	Silver Bow Creek at Frontage Road	4	1	8	0	67.4	6.5

When compared to the sites with severe impairment, the assemblages at sites with moderate impairment (SS-01, SS-05A, SS-08, SS-10A, SS-10B, SS-11C, SS-13, SS-14, SS-15B, SS-17D, and SS-19) had either slightly higher mayfly, stonefly and/or caddisfly richnesses or lower percentage of tolerant organisms or filter feeders.

In 2015, HBI metric values were elevated relative to the impact threshold for nutrients determined by McGuire [2010] at all but four sites [Figure 5-2]. Sites SS-15A, SS-15G, SS-16B and SS-17D were below the threshold value. The HBI at site SS15B was only slightly above the threshold. Exceptionally high (>6.0) values for the HBI were found at five sites (SS-05A, SS-07, SS-08, SS-10A and SS-10B) suggesting moderate to severe impairment by organic nutrients [McGuire, 2010].

MTI metric values for 11 sites were elevated relative to the impact threshold for metals determined by McGuire [2010] [Figure 5-3]. However, of those 11 sites, five (SS-05A, SS10A, SS10B, SS15B, SS19) were only slightly above the threshold. Six sites (SS-08, SS-14, SS-15A, SS-15G, SS-16B, and SS-17D) generated MTI values that indicated no impact from metals contamination, according to McGuire's guidance.

Table 5-6. Bioassessment scores and values for selected metrics calculated for Silver Bow Creek sites: MFVP [Bollman, 1998] aquatic invertebrate biointegrity scores, expressed as percent of maximum possible score, with impairment classifications; the Hilsenhoff Biotic Index (HBI) metric values; and the metals tolerance index [McGuire, 2009] metric values. Silver Bow Creek watershed, September 8-9, 2015.

Site ID	Site Location	MVFP score (% of max. score)	MVFP impairment classification	HBI	MTI
SS-01	Blacktail Creek at Father Sheehan Park	27.8	moderate	5.39	4.80
SS-05A	Silver Bow Creek above Butte Reduction Works	44.4	moderate	6.63	4.14
SS-06G	Silver Bow Creek above Butte WWTP	11.1	severe	5.45	4.78
SS-07	Silver Bow Creek below Butte WWTP	5.6	severe	7.83	4.54
SS-08	Silver Bow Creek at Rocker	22.2	moderate	6.58	2.70
SS-10A	Silver Bow Creek above Sand Creek	22.2	moderate	6.65	4.11
SS-10B	Silver Bow Creek below Sand Creek	27.8	moderate	6.85	4.01
SS-11C	Silver Bow Creek above Browns Gulch	22.2	moderate	5.80	4.33
SS-11D	Silver Bow Creek below Browns Gulch	16.7	severe	5.70	4.47
SS-13	Silver Bow Creek in Reach L	22.2	moderate	5.31	4.63
SS-14	Silver Bow Creek at Miles Crossing	27.8	moderate	5.18	3.90
SS-15A	Silver Bow Creek above German Gulch	16.7	severe	3.97	3.75
SS-15B	Silver Bow Creek below German Gulch	44.4	moderate	4.27	4.05
SS-15G	German Gulch near confluence	72.2	slight	2.35	2.43
SS-16B	Silver Bow Creek in Reach P near Fairmont	16.7	severe	3.06	3.19
SS-17D	Silver Bow Creek below Stewart St Opportunity	22.2	moderate	3.67	3.54
SS-19	Silver Bow Creek at Frontage Road	44.4	moderate	5.72	4.05

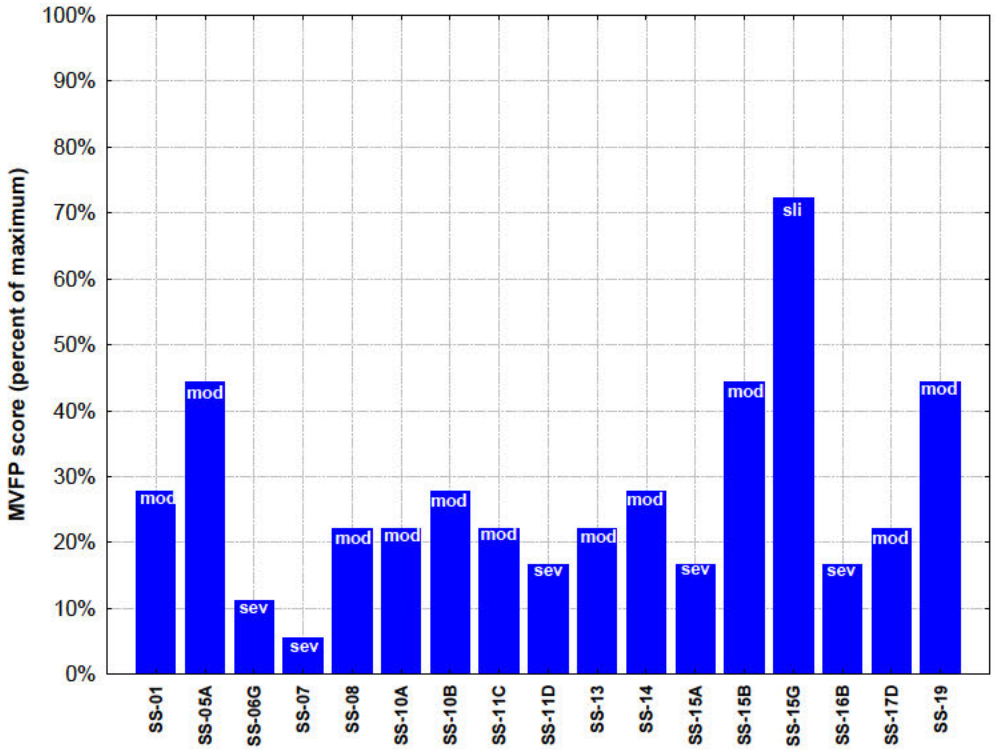

Figure 5-1. Montana Valley and Foothill Prairies (MVFP) aquatic invertebrate biointegrity scores [Bollman, 1998], expressed as percent of maximum possible score: comparison among sites. Bars are labeled with MVFP index impairment classifications. Silver Bow Creek watershed, September 8-9, 2015.

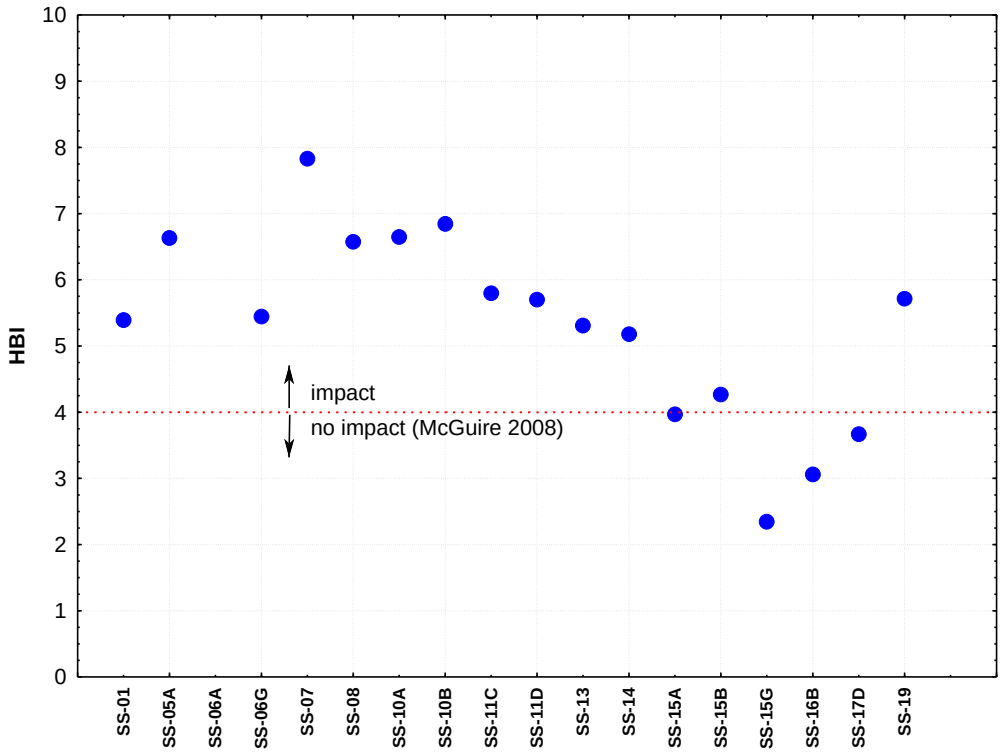

Figure 5-2. Hilsenhoff Biotic Index (HBI) values: comparison among sites. The red dashed line represents the presumed impact threshold determined for the Clark Fork River basin [McGuire, 2009]. (Site SS-06A was not sampled in 2015.) Silver Bow Creek watershed, September 8-9, 2015.

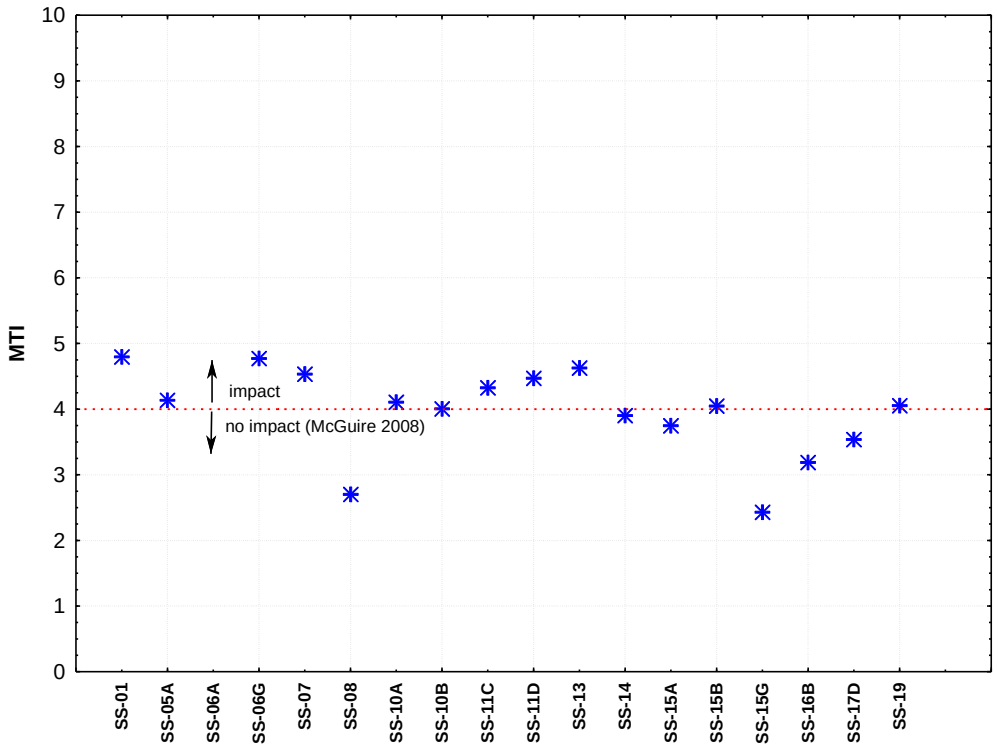

Figure 5-3. Metals tolerance index (MTI) values: comparison among sites. The red dashed line represents the presumed impact threshold determined for the Clark Fork River basin [McGuire, 2009]. (Site SS-06A was not sampled in 2015.) Silver Bow Creek watershed, September 8-9, 2015.

5.3.3 Ecological Interpretation of Aquatic Assemblages

5.3.3.1 SS-01: Blacktail Creek at Father Sheehan Park

5.3.3.1.1 Comparisons among Years

MVFP bioassessment scores [Figure 5-4] varied from year to year at Site SS-01, but the 2015 score was identical to the 2014 score. Moderate impairment is indicated in 2015. According to McGuire's guidance, the MTI indicated slight impairment from metals in every year since 2010, and the HBI indicated mild-to-moderate nutrient enrichment [Figure 5-5].

5.3.3.1.2 2015 Data

5.3.3.1.2.1 Water quality

Indicators of water quality suggested impaired conditions at this site: only one mayfly taxon (five specimens of *Baetis rhodani* Group) and no pollution sensitive taxa were collected, and pollution tolerant organisms (mostly *Optioservus* (24.8%), the dominant organism in the sample) composed 28.6% of the assemblage. The biotic index (HBI = 5.39) was higher than expected for a low-order Middle Rockies stream. Collector filterers (9.2%) were slightly more abundant than expected. Abundant naidid oligochaetes (>10%, e.g., *Nais* sp. and *Ophidonais serpentina*) and midges in the genus *Orthocladius* (>13%) suggest that filamentous algae may be present, large crops of which may be associated with nutrient enrichment. The high HBI, slightly high percentage of collector filterers, and high relative abundances of naidids and orthoclad midges suggest that the impaired conditions may be related to nutrient enrichment. In addition, the MTI (4.80) suggests slight metals contamination, according to McGuire's guidance.

5.3.3.1.2.2 Thermal condition

No cold stenotherm taxa were collected in this reach. The thermal preference of the aquatic invertebrate assemblage was 16.2ºC.

5.3.3.1.2.3 Sediment deposition

Sediment-induced habitat disruption seems likely here as neither "clingers" (10 taxa) nor caddisflies (three taxa) were as diverse as expected. This result is supported by the FSBI (3.7) which indicated a moderately sediment-tolerant assemblage.

5.3.3.1.2.4 Habitat diversity and integrity

Taxa richness (44) was the highest of the study sites in 2015, but somewhat below expectations for a low order stream in the Middle Rockies ecoregion. Low taxa richness may be related to reduced habitat diversity. No stoneflies were collected at this site, which may be related to altered channel morphology, unstable streambanks, or disturbed riparian function. Catastrophic dewatering or thermal extremes were not indicated for this site because five semivoltine taxa were collected and the elmid *Optioservus* was common. All expected functional groups were present with collectors (46.7%) dominating, indicating the importance of fine

particulate organic matter to the assemblage. In addition, scrapers (26.4%) were also common, which may indicate an open canopy and the importance of autochthonous algal production in the reach.

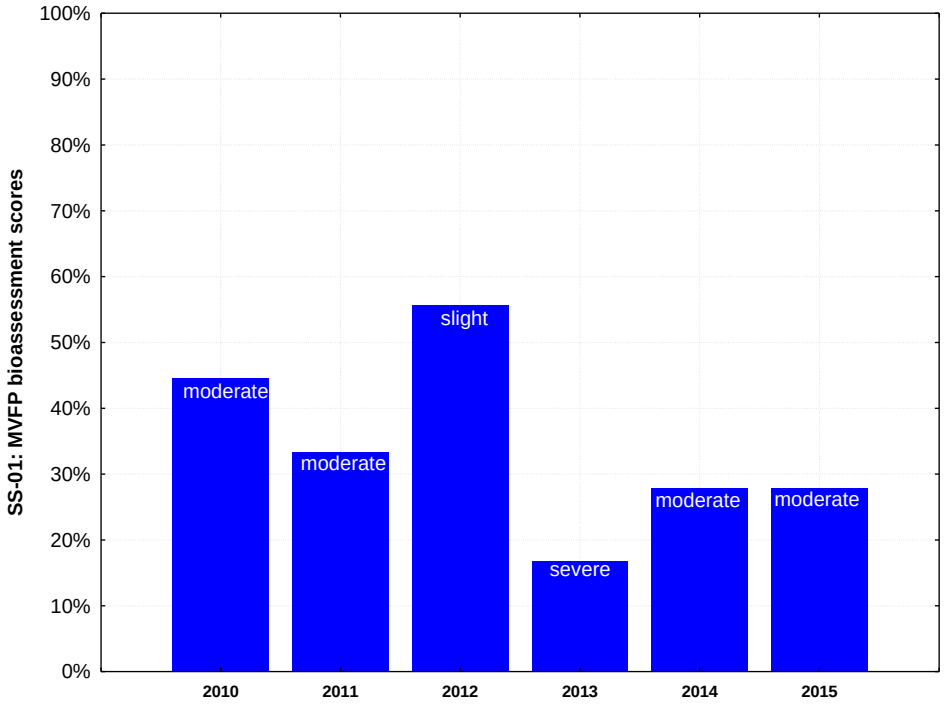

Figure 5-4. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-01. Bars are labeled with impairment classifications.

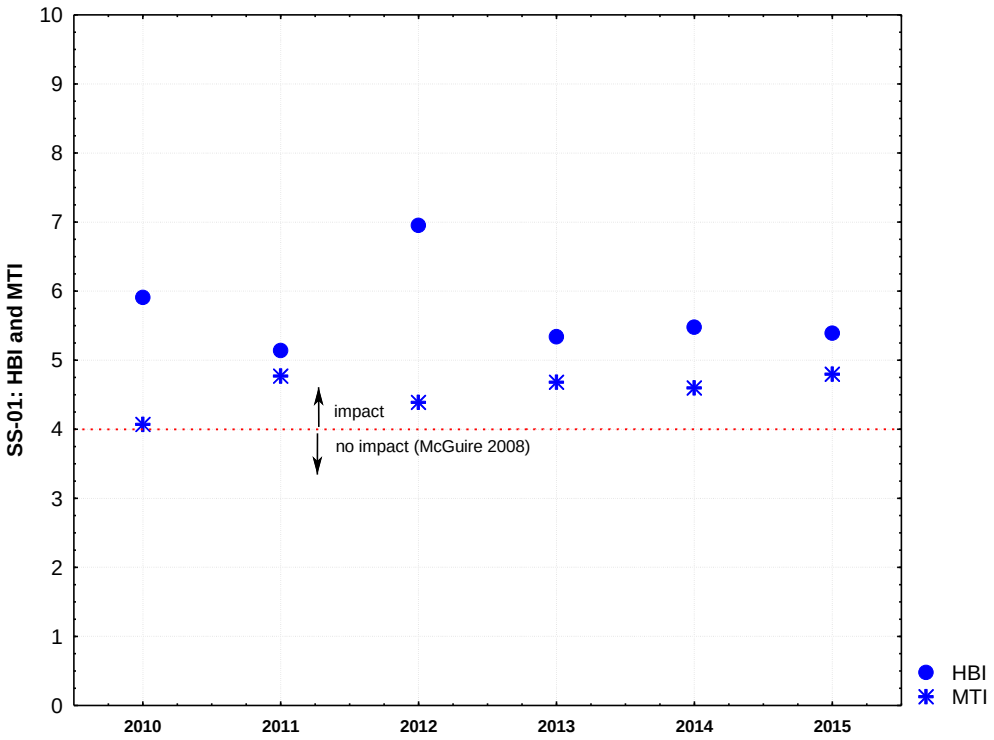

Figure 5-5. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-01. The red dashed line represents the "no impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.3.2 SS-05A: Silver Bow Creek above Butte Reduction Works

5.3.3.2.1 Comparisons among Years

MVFP bioassessment scores [Figure 5-6] indicated moderate impairment at site SS-05 in 2015, an improvement compared to the severe impairment indicated by scores in 2014. According to McGuire's guidance, the MTI indicated slight impairment from metals in each year since 2012, and the HBI indicated mild-to-moderate nutrient enrichment over the same time period [Figure 5-7].

5.3.3.2.2 2015 Data

5.3.3.2.2.1 Water quality

The ecological characteristics of the invertebrate assemblage suggest that water quality was impaired in this reach. Mayflies were represented by only three specimens in a single taxon (*Baetis rhodani* Group). The biotic index value (6.63) was high, although it is probably elevated because the aquatic mites *Lebertia* sp. and *Hygrobates* sp. accounted for about 25% of the assemblage and they are assigned high HBI values. However, HBI values for aquatic mites ought to be considered provisional, because there has been little research into differences among genera with regard to pollution tolerance. When these taxa were removed from the calculation the HBI was still quite high (5.93). Pollution tolerant organisms composed 27.0% of the sample represented primarily by the elmid beetle *Optioservus* and the snail *Stagnicola*. Only one sensitive taxon, the chironomid *Potthastia longimanus* Group, represented by two individuals, was collected. The high HBI suggests that nutrient enrichment is the cause of the reduction in water quality in this reach. Impact by metals is not well supported as the MTI (4.14) was only slightly over the threshold for metals impact set by McGuire.

5.3.3.2.2.2 Thermal condition

No cold stenotherm taxa were collected in this reach. Indeed, the warm-water preferring snails *Stagnicola* sp. (8.8%) and *Gyraulus* sp. (3.1%) were common. The thermal preference of the aquatic invertebrate assemblage was 16.5 C.

5.3.3.2.2.3 Sediment deposition

Five caddisfly taxa, but only nine "clinger" taxa were collected from this reach. A sediment-tolerant assemblage was suggested by the FSBI of 3.35. These data indicate that the habitat may be disrupted by sediment deposition.

5.3.3.2.2.4 Habitat diversity and integrity

Overall taxa richness (32) was low, which may reflect monotonous or disrupted instream habitats, poor water quality, or both. The absence of stoneflies may be related to reach-scale disturbances: unstable streambanks, loss of riparian function, or channel alteration are examples of such disturbances. Only two non-pioneer semivoltine taxa were present, only one of which was common (*Optioservus*, about 10% of the assemblage). Given these data disturbances as the result of periodic scour, dewatering, thermal stress, or toxic pollutants cannot be ruled

out. The functional composition of the invertebrate assemblage was strongly dominated by predators (51.3%) of which the mite predators, Lebertia sp., Hygobates sp., and Sperchon sp. were the most abundant. Dominance by non-insect predators is sometimes interpreted as evidence for limited and unbalanced energy resources. The second most common functional group was the scrapers (23.6%), thus the importance of autochthonous algal production to the energy flow and an open canopy at this site are suggested.

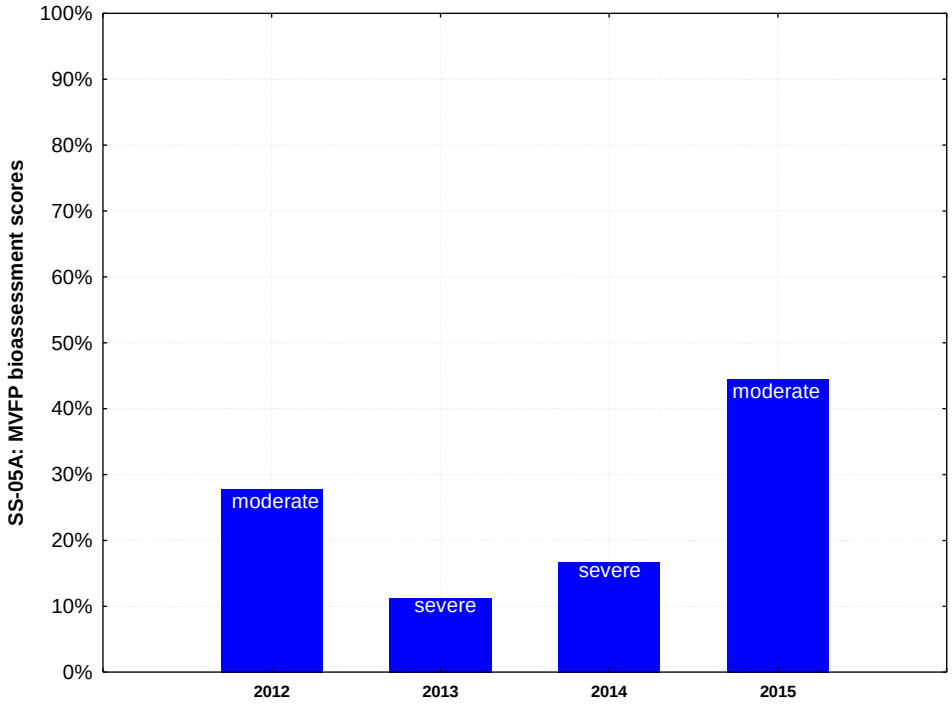

Figure 5-6. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-05A. Bars are labeled with impairment classifications.

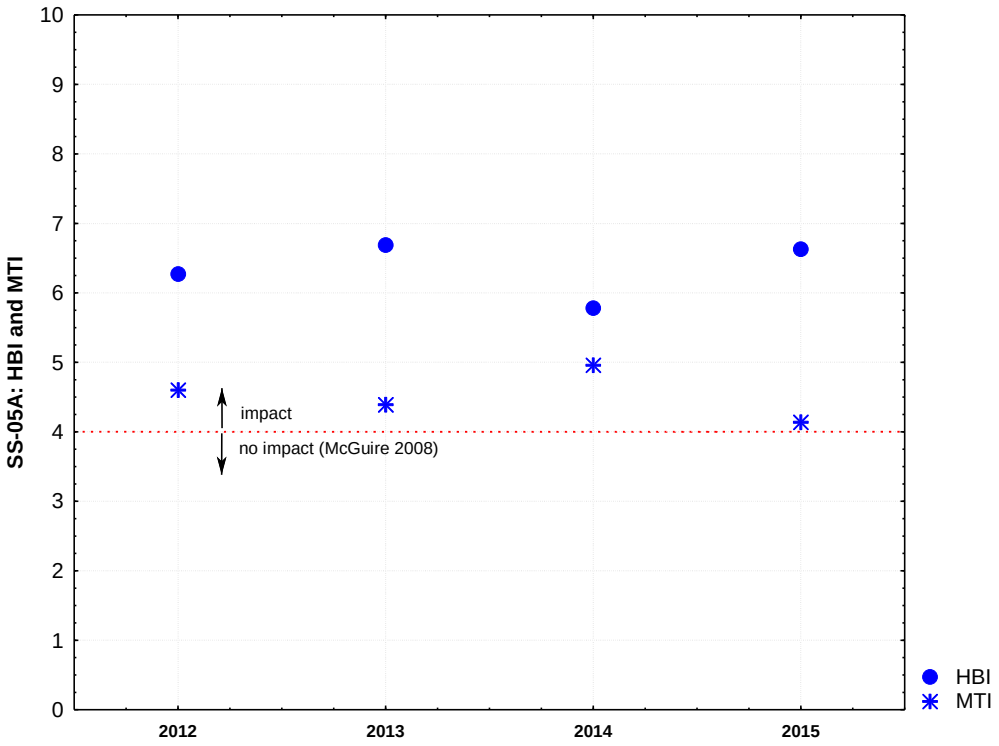

Figure 5-7. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-05A. The red dashed line represents the "no impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.3.3 SS-06G: Silver Bow Creek above Butte WWTP

5.3.3.3.1 Comparisons among Years

Similar to recent years, severe impairment was indicated by MVFP bioassessment scores [Figure 5-8] at site SS-06G in 2015. According to McGuire's guidance, the MTI indicated slight impairment from metals in each year since 2012, and the HBI indicated mild-to-moderate nutrient enrichment since 2010 [Figure 5-9].

5.3.3.3.2 2015 Data

5.3.3.3.2.1 Water quality

It appears that water quality is severely impaired at this site. The only mayfly taxon in the sample was *Baetis rhodani* Group and only two specimens were collected. No pollution sensitive taxa were collected and the assemblage was strongly dominated by pollution tolerant organisms (52.3%) including *Optioservus* (37.3%), the dominant organism in the sample, and the snail *Stagnicola* (5.6%). The HBI (5.45) was above expectations. The scrapers (43.1%, mainly *Optioservus* sp.) and filtering collectors (31.7%, mainly the net-spinning caddisflies *Hydropsyche* and *Cheumatopsyche*) dominated the assemblage. These results suggest that the impairment was related to nutrient enrichment. The MTI (4.77) suggested slight metals contamination.

5.3.3.3.2.2 Thermal condition

The characteristics of the biota indicated that the thermal preference of the assemblage was 17.2ºC. Warm-water preferring taxa, including the snail *Stagnicola* sp. (5.6%) and caddisfly *Oecetis* sp. (4.3%), were common. No cold stenotherm taxa were recorded from this reach.

5.3.3.3.2.3 Sediment deposition

Only four caddisfly taxa were found in this sample and only the filtering collectors *Cheumatopsyche* sp. and *Hydropsyche* sp. were common. The "clingers" were represented by eight taxa. These characteristics as well as an FSBI of 3.62 indicate that colonization of the biota of this site may be limited by sediment deposition.

5.3.3.3.2.4 Habitat diversity and integrity

Taxa richness (23) of the benthic fauna was very low at this site and as with many of the other Silver Bow sites no stoneflies were collected. Low stonefly taxa richness could be related to instream habitat disruption, reach-scale disturbances such as altered channel morphology, unstable stream banks or disrupted riparian zones, impaired water quality, or all three. Three long-lived taxa were collected, but only one of those was common (*Optioservus*), thus thermal extremes or scour cannot be ruled out. Collectors (39.5%) and scrapers (43.1%) dominated the functional composition of the benthic assemblage. A high percentage of collectors indicates the importance of fine particulate organic matter in the energy flow in this reach. Lack of channel shading may have benefited the well-developed algal films that are suggested by the high relative abundance of scrapers. However, shredders (<2%) were very uncommon, supporting the idea that riparian zone disruption might be a problem here.

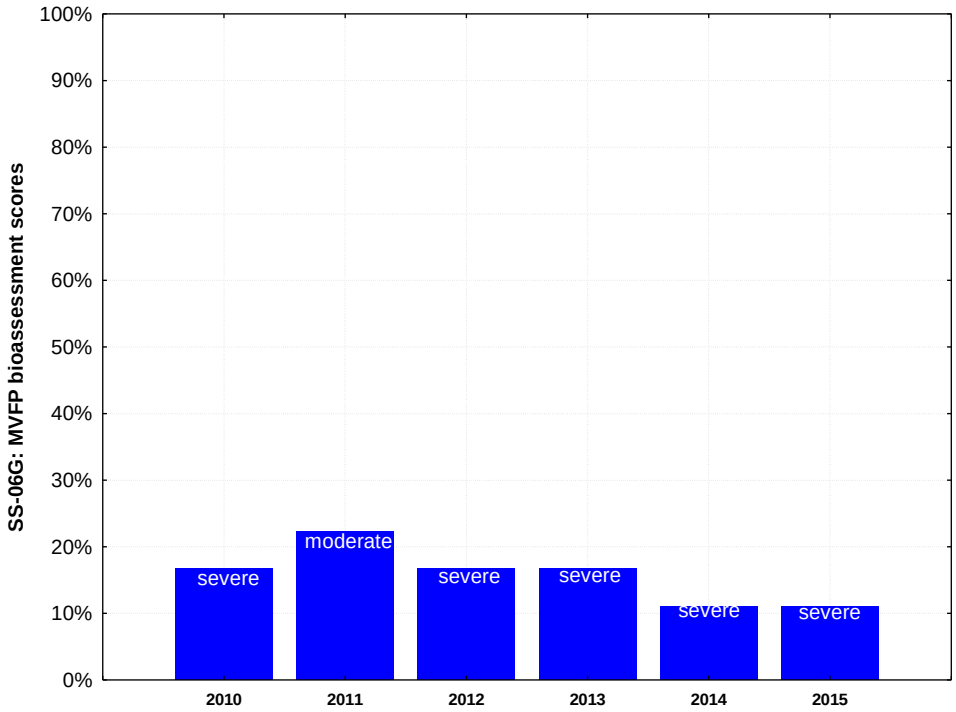

Figure 5-8. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-06G. Bars are labeled with impairment classifications.

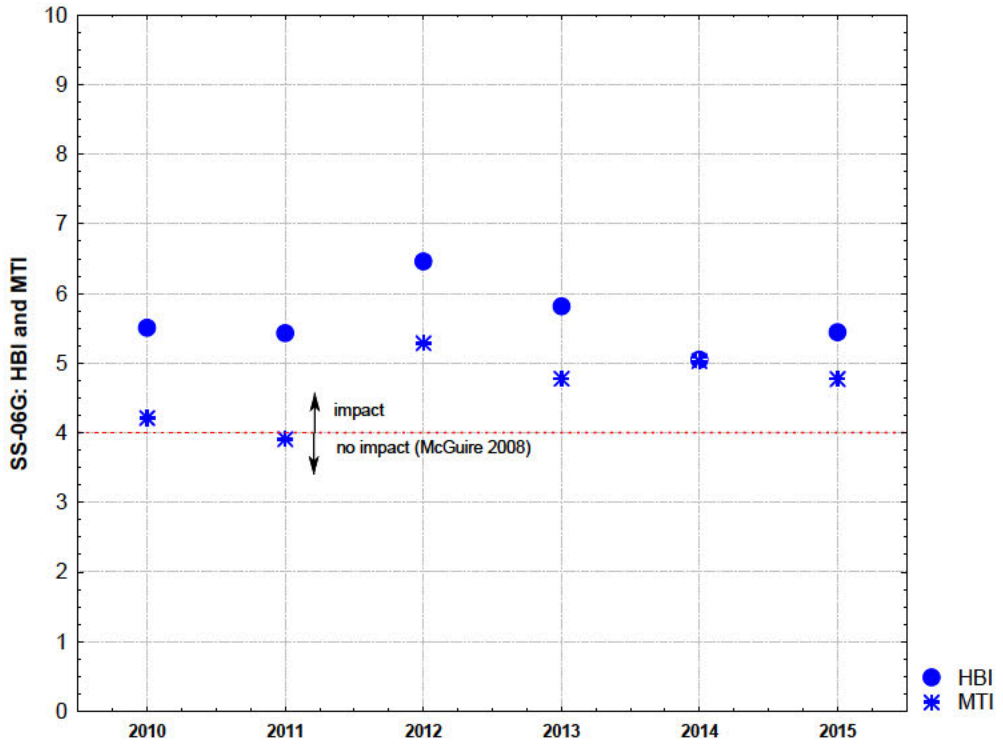

Figure 5-9. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-06G. The red dashed line represents the "no impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.3.4 SS-07: Silver Bow Creek below Butte WWTP

5.3.3.4.1 Comparisons among Years

Site SS-07 remained severely impaired in 2015, as measured by the MVFP bioassessment index. Scores since 2010 at this site are graphed in Figure 5-10. According to McGuire's guidance, the MTI indicated slight impairment from metals in each year since 2012, and the HBI indicated mild-to-moderate nutrient enrichment since 2010 [Figure 5-11].

5.3.3.4.2 2015 Data

5.3.3.4.2.1 Water quality

The lack of mayflies as a component of the biota, the very high HBI (7.83) and the higher than expected relative abundance of collector filterers (13.2%) suggest that the water quality of this site is severely impaired. No sensitive taxa were collected and the assemblage was strongly dominated by pollution tolerant organisms (47.0%), particularly midges in genus *Chironomus* (39.2%) that have an HBI value of 10 and were the dominant organisms in the sample. *Chironomus* sp. also contain hemoglobin, thus the percentage of hemoglobin-bearing organisms (40.2%) was high suggesting high biological oxygen demand in the sediments. These results suggest that water quality was impaired by nutrient enrichment and that sediments were hypoxic. In addition, abundant naidid oligochaetes (e.g., *Nais* sp.) suggest that filamentous algae may have been present, also a possible sign of nutrient enrichment. The MTI (4.50) suggests slight impact from metals.

5.3.3.4.2.2 Thermal condition

No cold stenotherm taxa were found in this sample. The thermal preference of the assemblage was 16.5ºC.

5.3.3.4.2.3 Sediment deposition

Colonization of this site by benthic organisms also seems to be severely impaired. No caddisfly taxa and only six "clinger" taxa were found in this sample. In addition, the FSBI of 3.0 indicates an assemblage that is fine-sediment tolerant.

5.3.3.4.2.4 Habitat diversity and integrity

Only 26 taxa were sampled at this site none of which were stoneflies. Only one long-lived taxon was collected, the pollution tolerant elimid beetle O*ptioservus* (6.4%), which was common. These results suggest that both instream and reach-scale habitats are probably disrupted and that catastrophic events such as thermal extremes or scour cannot be ruled out in this reach. Poor water quality could also contribute to reduced taxa richness. The functional composition of the assemblage was dominated by collector gatherers (63.7%) and collector filterers suggesting that energy flow in this reach is dominated by fine particulate organic matter. All other functional groups were represented, but were not a large part of the assemblage.

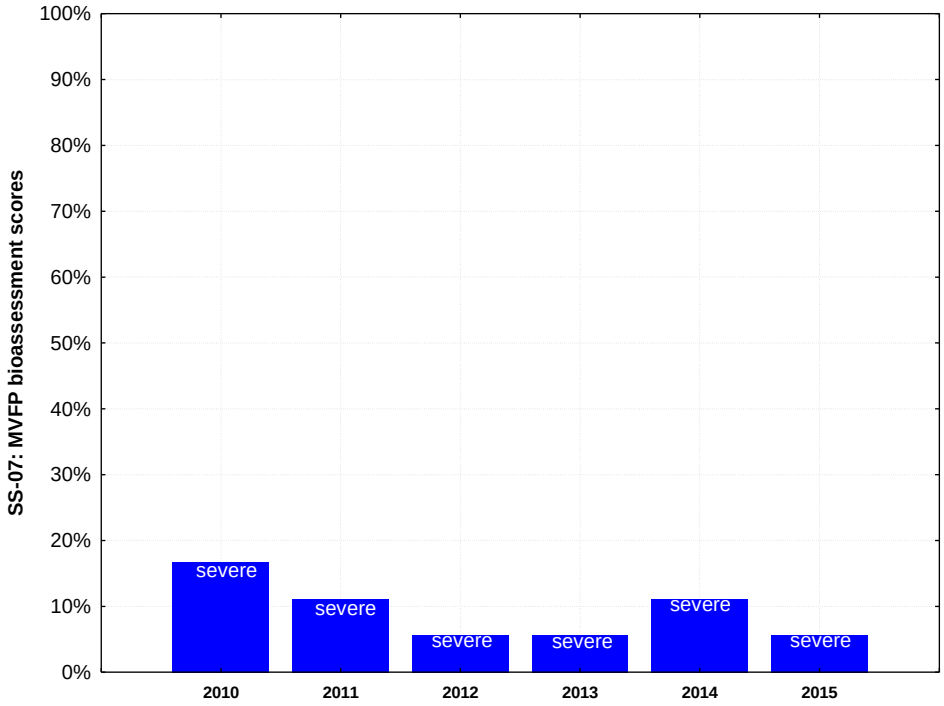

Figure 5-10. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-07. Bars are labeled with impairment classifications.

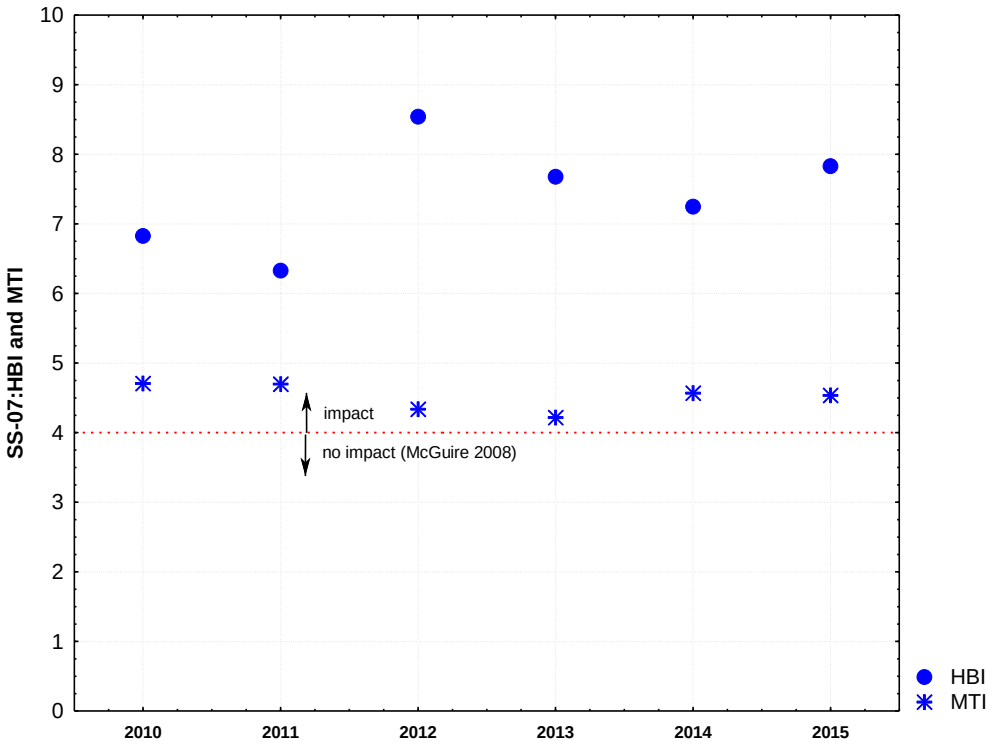

Figure 5-11. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-07. The red dashed line represents the "no impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.3.5 SS-08: Silver Bow Creek at Rocker

5.3.3.5.1 Comparisons among Years

Moderate impairment was measured by the MVFP index at site SS-08 in 2015 [Figure 5-12]. According to McGuire's guidance, the MTI indicated no impairment from metals in 2015, and the HBI indicated mild-to-moderate nutrient enrichment since 2010. HBI and MTI scores are graphed in Figure 5-13.

5.3.3.5.2 2015 Data

5.3.3.5.2.1 Water quality

As with many other sites on Silver Bow Creek in 2015, neither mayflies nor sensitive taxa were found in the sample and the composition of the fauna suggests that water quality is impaired. The HBI (6.58) was elevated and the relative abundance of collector filterers (10.3%) was slightly higher than expected, which may indicate that the fauna is impacted by high nutrient levels. The dominant taxon was the midge *Micropsectra* sp. (23.8%); however, non-insect taxa, including leeches and naidid oligochaetes, dominated the rest of the assemblage. The abundant naidids (*Ophidonais serpentina* (12.5%) and *Nais* sp. (5.1%) and the abundance of the midge *Micropsectra* sp. suggest that large crops of filamentous algae may have been present. The presence of large amounts of filamentous algae also supports the contention that nutrient enrichment affects this reach. The MTI (2.70) was well below the metals contamination threshold set by McGuire.

5.3.3.5.2.2 Thermal condition

Warm-water loving taxa, including the leeches *Erpobdella dubia* (9%) and *Helobdella stagnalis* (14.2%), were large components of the assemblage. No cold stenotherms were collected. The temperature preference of the assemblage was 17.7ºC.

5.3.3.5.2.3 Sediment deposition

Although three caddisfly taxa were collected, they were represented by only five specimens in the sample. "Clinger" richness (8) was below expectations. The FSBI of 3.33 indicated a sediment- tolerant assemblage. These results suggest that the colonization of the stony sediments is impeded by fine sediment at this site.

5.3.3.5.2.4 Habitat diversity and integrity

The sampled yielded 25 taxa, which is below expectations, and less than half of them (11) were insects. Low taxa richness may be an indicator of impaired water quality, disrupted habitats, or both. Similar to other Silver Bow sites, stoneflies were not among the taxa collected suggesting that reach-scale habitat features were impaired; however, poor water quality could have limited the colonization of stoneflies as well. Two semivoltine taxa were collected, but neither *Haliplus* sp. (two individuals) nor *Optioservus* sp. (one individual) were common. Catastrophes such as toxic pollutants, dewatering, scouring sediment pulses, or thermal extremes cannot be ruled out here. The functional composition of the assemblage was

dominated by collector gatherers (59.2%), primarily midges and naidid oligochaetes. Collector filterers were also common. These results suggest that the energy flow was dominated by fine particulate organic matter. The high relative abundance of leeches also caused the predator functional group (26.1%) to be plentiful. Scrapers (2.6%) and shredders (1.3%) were underrepresented.

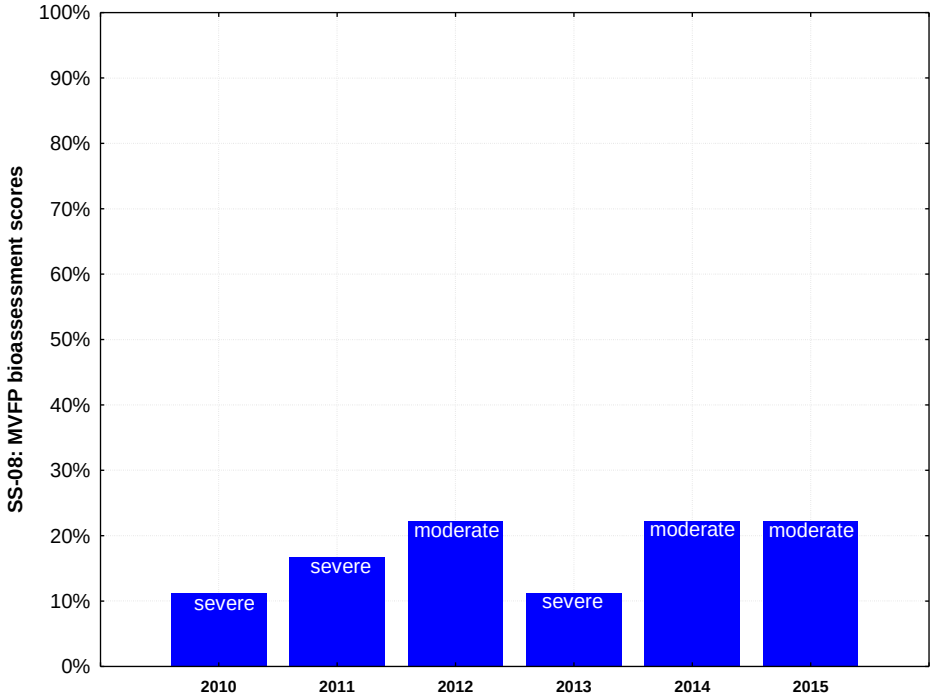

Figure 5-12. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-08 Bars are labeled with impairment classifications.

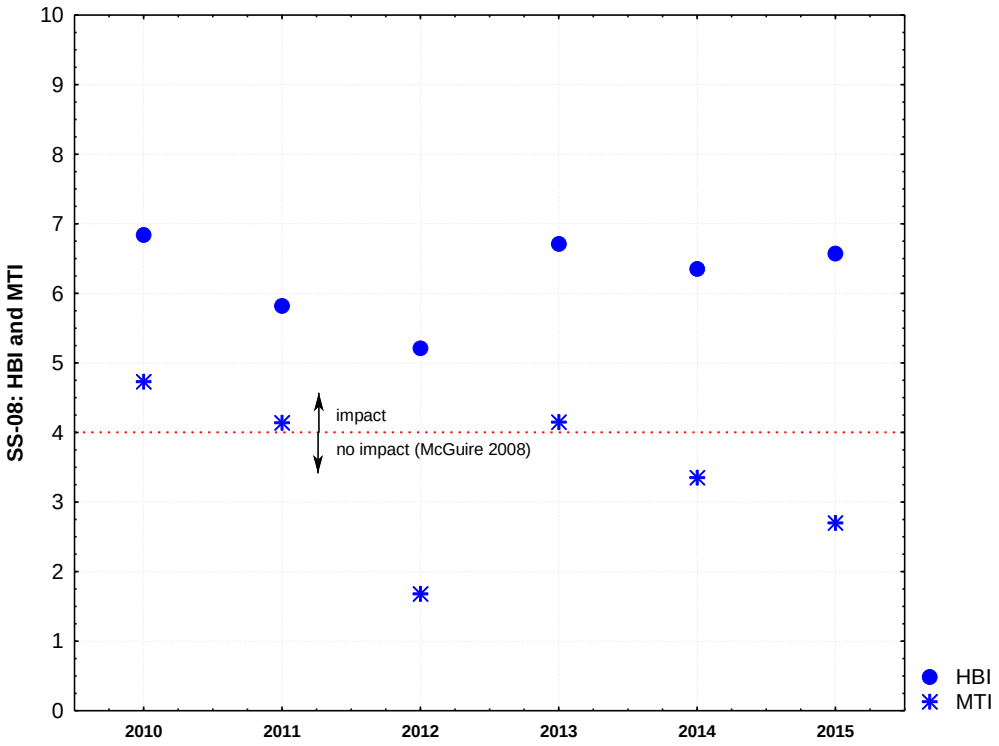

Figure 5-13. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-08. The red dashed line represents the "no impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.3.6 SS-10A: Silver Bow Creek above Sand Creek

5.3.3.6.1 Comparisons among Years

Moderate impairment is indicated by MVFP scores in 2015 [Figure 5-14]. The MTI value was very slightly above McGuire's threshold for impairment by metals, and the HBI indicated mild-to-moderate nutrient enrichment since 2010 [Figure 5-15].

5.3.3.6.2 2015 Data

5.3.3.6.2.1 Water quality

There were three mayfly taxa (*Baetis tricaudatus* complex, *Iswaeon* sp., and *Caenis* sp.) in this sample; however, each taxon was represented by only one individual. No pollution sensitive taxa were collected and pollution tolerant organisms (26.2%, mainly the snails *Physella* sp., *Stagnicola* sp., and *Gyraulus* sp.) were a large component of the assemblage. The HBI (6.65) and the percentage of collector filterers (22.9%) were both elevated above expectations. Thus, water quality appears to be impaired, probably by nutrient enrichment. In addition, hemoglobin-bearing organisms (10.7%), primarily the snail *Gyraulus* sp. (10.4%), were common, suggesting that hypoxic sediments may occur in this reach. The MTI of 4.11 indicated little potential for metals contamination as it was only slightly above McGuire's threshold.

5.3.3.6.2.2 Thermal condition

No cold stenotherm taxa were found in this sample. Warm-water preferring taxa were present, including the leeches *Helobdella stagnalis* and *Erpobdella* sp. In addition, the snails *Stagnicola* sp. (4.0%) and *Gyraulus* sp. (10.4%) were common. The temperature preference of the assemblage was 17.4ºC.

5.3.3.6.2.3 Sediment deposition

Both caddisfly taxa richness (2) and "clinger" taxa richness (6) were well below expectations for a low order stream in the Middle Rockies ecoregion. The FSBI of 2.93 suggests that the fauna at this site are extremely sediment-tolerant. Consequently, the data suggest that the deposition of fine sediments could prohibit the colonization of the stony stream bottom.

5.3.3.6.2.4 Habitat diversity and integrity

Taxa richness was below expectations for low order stream in the Middle Rockies ecoregion as only 31 taxa were recorded from this site. Poor water quality and/or disrupted instream habitats may have contributed to low invertebrate diversity. The absence of stoneflies may be related to water quality problems, or to reach-scale habitat disturbances, or both. Only one long-lived taxon (*Haliplus* sp.) was found in this sample and it was represented by only one individual. Periodic thermal extremes, scour, dewatering, or toxic pollutants cannot be ruled out. The functional composition was dominated by collector filterers (primarily blackflies, > 10%) and collector gatherers (primarily orthoclad midges, > 14%) indicating the importance of fine particulate organic matter to the energy flow in this reach. Other functional groups were well represented including scrapers (18.9%) and shredders (19.8%), which may indicate the

importance of algal primary production and input of coarse particulate organic matter to the energy flow in this reach.

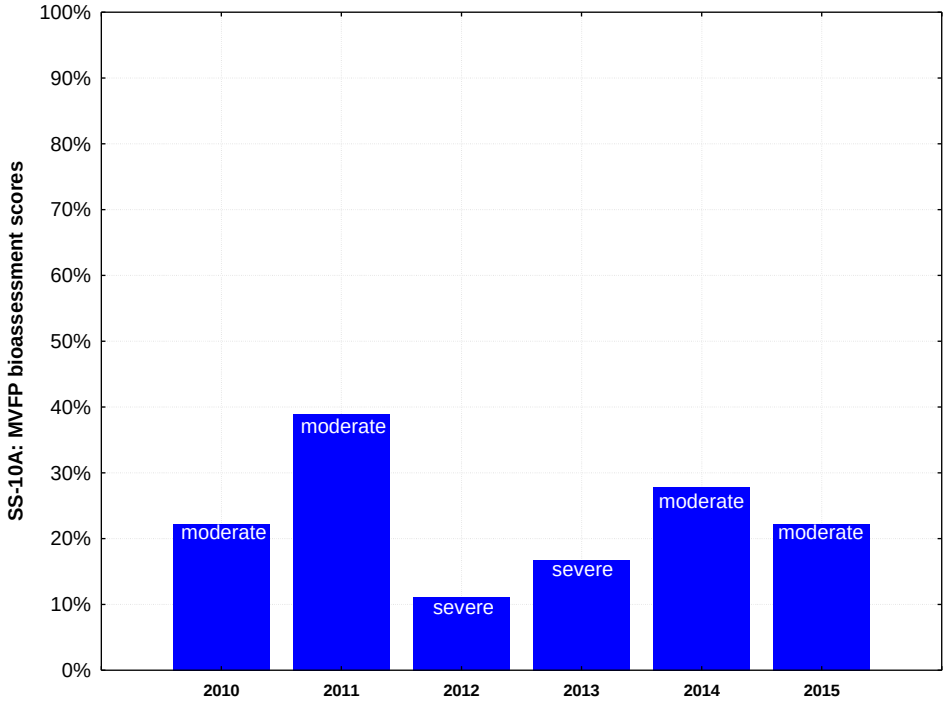

Figure 5-14. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-10A. Bars are labeled with impairment classifications.

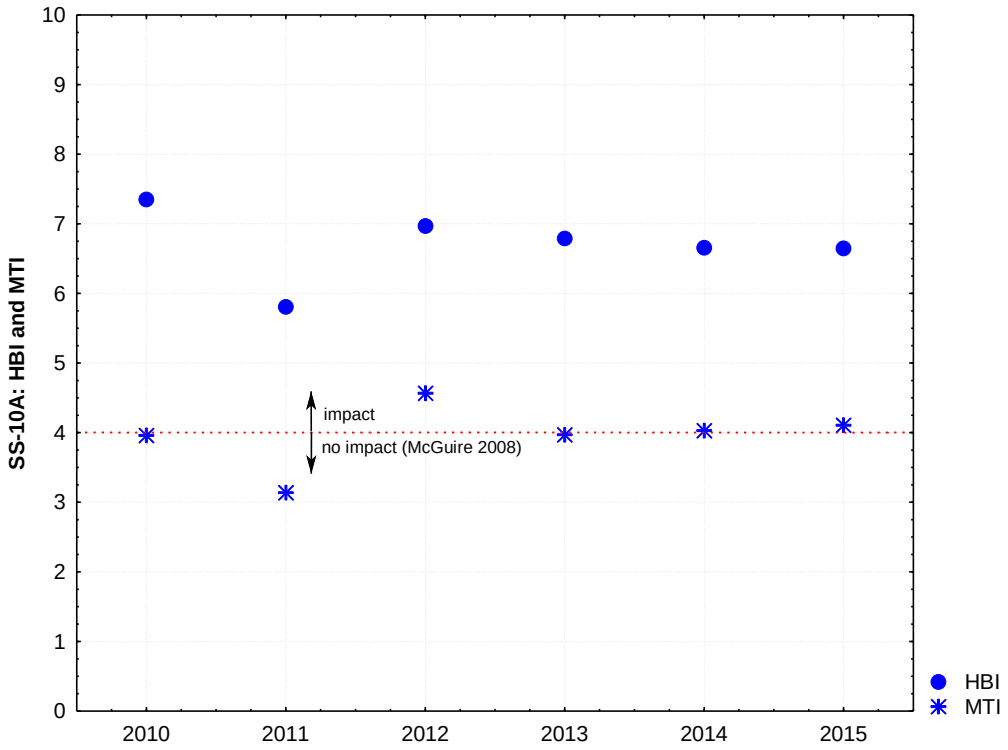

Figure 5-15. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-10A. The red dashed line represents the "no impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.3.7 SS-10B: Silver Bow Creek below Sand Creek

5.3.3.7.1 Comparisons among Years

Moderate impairment is indicated by MVFP bioassessment scores in 2015, with no apparent trend in these scores between 2010 and 2015. MVFP scores are graphed in Figure 5-16. According to McGuire's guidance, the MTI indicated very slight impairment from metals in 2014, but no impairment was indicated in 2015. The HBI indicated mild-to-moderate nutrient enrichment since 2010 [Figure 5-17].

5.3.3.7.2 2015 Data

5.3.3.7.2.1 Water quality

Most indicators of water quality suggested impaired conditions in this reach: three mayfly taxa (one specimen each of *Callibaetis* sp., *Iswaeon* sp., and *Caenis* sp.) and no pollution sensitive taxa were collected, and pollution tolerant organisms (mainly the snails *Physella* sp., *Stagnicola* sp., and *Gyraulus* sp.) composed 24.2% of the assemblage. The HBI (6.85) indicated poor water quality. However, collector filterers (5.9%) were not that common Thus, most data suggest that nutrient enrichment probably influences the biota at this site. The MTI (4.01) provides little evidence of metals contamination.

5.3.3.7.2.2 Thermal condition

The calculated thermal preference (19.4ºC) of the assemblage was the highest of all the sites sampled in 2015. As would be expected, warm-water preferring invertebrates were common and included the snails *Stagnicola* sp. (6.8%) and *Gyraulus* sp. (4.4%) and the caddisfly *Oecetis* sp. (5.9%). No cold stenotherm taxa were recorded from this site.

5.3.3.7.2.3 Sediment deposition

Only two caddisfly and seven "clinger" taxa were found in this sample, both of which are below expectations. The FSBI (2.40) indicates a sediment tolerant assemblage. Thus, invertebrate colonization of the benthos might be impeded by the deposition of fine sediment here.

5.3.3.7.2.4 Habitat diversity and integrity

The habitat appears to be disrupted at this site as only 28 taxa and no stoneflies were collected, both below expectations. Consequently, in-stream and reach-scale habitats might be disturbed, although poor water quality cannot be ruled out as the cause. The lack of any semivoltine taxa in the sample suggests that catastrophes like periodic thermal extremes, scour, dewatering, or toxic pollutants are common enough to not allow complete development of long-lived taxa. All functional groups were well represented with the collector gatherers (28.6%) being the most abundant. Shredders (21.4%) and scrapers (14.9%) were also common perhaps indicating the important roles of both allochthonous and autochthonous production to the energy flow of the reach. Predators (23.0%) were also common with mites making up >8% of the predator group.

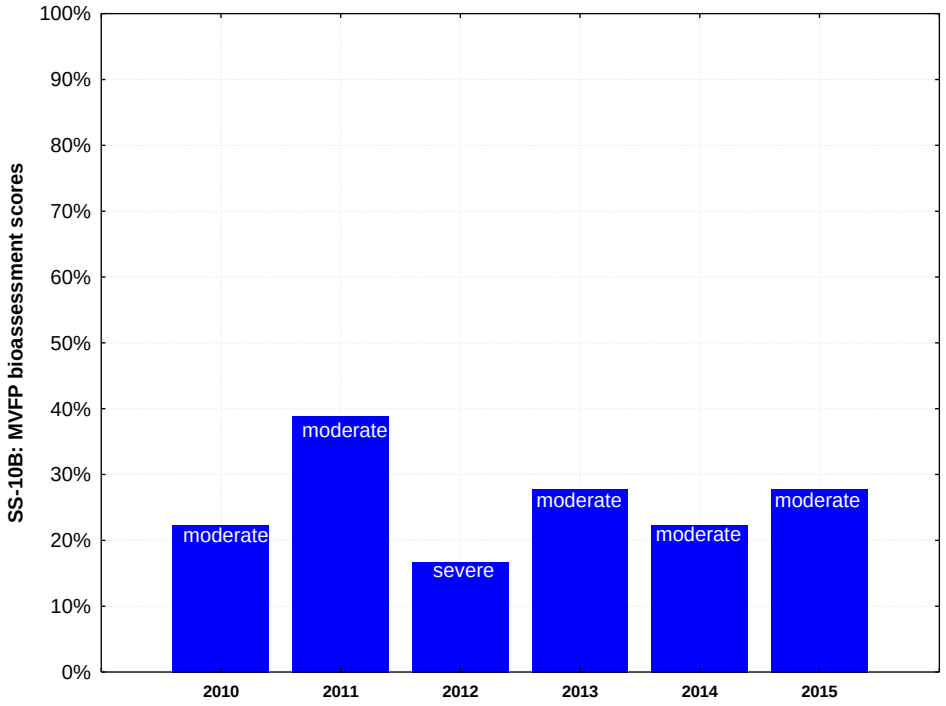

Figure 5-16. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-10B. Bars are labeled with impairment classifications.

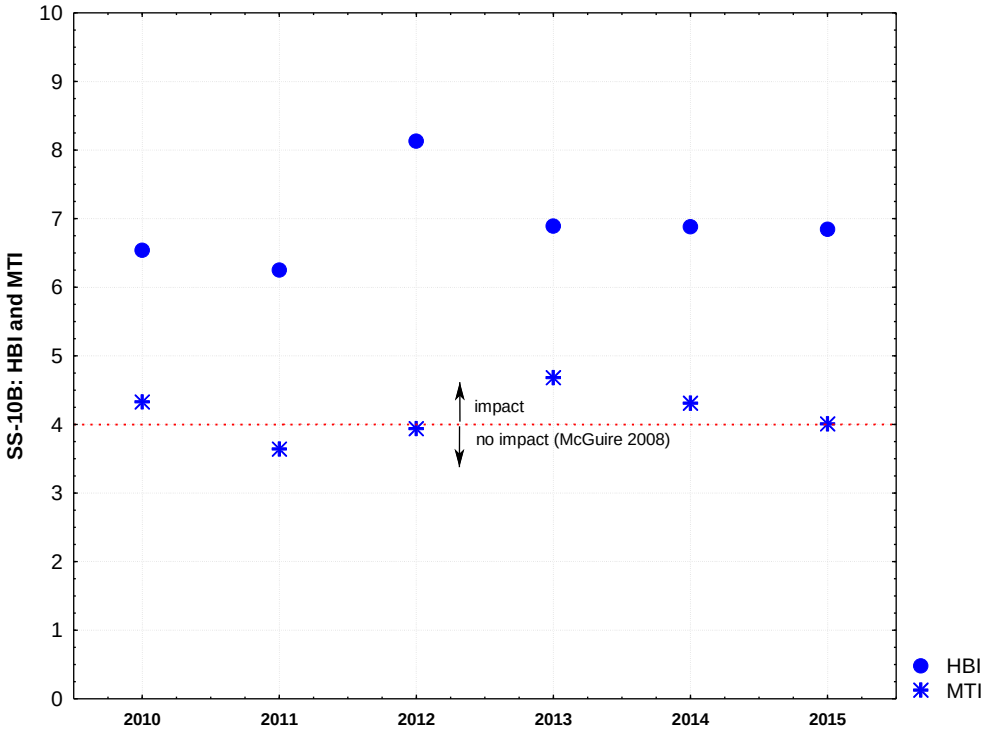

Figure 5-17. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-10B. The red dashed line represents the "no

impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.3.8 SS-11C: Silver Bow Creek above Browns Gulch

5.3.3.8.1 Comparisons among Years

MVFP bioassessment scores [Figure 5-18] improved slightly at site SS-11C since 2014, indicating moderate impairment in 2015. The MTI was slightly higher than the threshold for impairment, according to McGuire's guidance. The HBI indicated mild-to-moderate nutrient enrichment since 2010 [Figure 5-19].

5.3.3.8.2 2015 Data

5.3.3.8.2.1 Water quality

The ecological characteristics of the invertebrate assemblage suggest that water quality was impaired in this reach. Mayflies were represented by only three specimens, one in each of three taxa (*Baetis* sp., *Iswaeon* sp., and Ephemerellidae). The HBI (5.80) suggested mild to moderate impairment. No sensitive taxa were collected and pollution tolerant organisms (38.8%) were a large component of the fauna. Tolerant taxa included the net-spinning caddisfly *Cheumatopsyche* sp. (the dominant taxon in this reach, 19.4%). As would be expected given that *Cheumatopsyche* sp. was the dominant taxon and that the relative abundance of *Hydropsyche* sp. (9.4%) was also high, collector filterers (45.9%) dominated the functional mix. These results suggest that nutrient enrichment plays a role in the impairment of the fauna at this site. In addition, hemoglobin-bearing organisms (8.3%), primarily the midge *Microtendipes* sp., were a large component of the assemblage suggesting that sediments were hypoxic, which supports the contention that nutrient enrichment occurred at this site. The MTI (4.33) was slightly elevated over the threshold of metals contamination set by McGuire.

5.3.3.8.2.2 Thermal condition

No cold stenotherm taxa were found in this sample. The temperature preference of the assemblage was 17.2ºC. Warm water temperatures were also suggested by the high relative abundance of the scraping caddisfly *Helicopsyche* sp. (11.7%) and the presence of the snail *Stagnicola* sp. (2.2%).

5.3.3.8.2.3 Sediment deposition

Five caddisfly taxa, all of which were fairly common, and 12 "clinger" taxa, which is only slightly fewer than expected, were collected in this reach. However, the FSBI of 3.14 suggested that the assemblage contained many sediment-tolerant organisms. Thus, some reduction in colonization of this reach as the result of the deposition of fine sediments cannot be ruled out.

5.3.3.8.2.4 Habitat diversity and integrity

Overall taxa richness (24) was low, and may reflect a dearth of instream habitats. No stoneflies were collected, suggesting reach-scale habitat disruption: unstable streambanks, loss of riparian zone integrity, or alteration of natural channel morphology may be indicated. Two semivoltine taxa were counted, and neither of these was abundant. Scour, dewatering, toxic pollutants, thermal extremes or other severe events that would prevent the completion of long

life cycles may occur in this reach. Collector filterers (45.9%) dominated and collector gatherers (10.8%) were a large component of the functional composition of the assemblage, which suggests that organic material as fine particulates and bacteria in suspension were an important energy source in the reach. Predators (24.6%) were also common, primarily a result of the large population of predatory mites, including *Hygrobates* sp. (16.0%) and *Sperchon* sp. (5.5%), suggesting limited sources of energy in the reach. Algal films may also have been important, since the scrapers (16.9%), mostly *Helicopsyche* sp., were abundant. On the other hand, shredders (1.2%) were uncommon, thus litter fall from riparian zones appeared to be unimportant here.

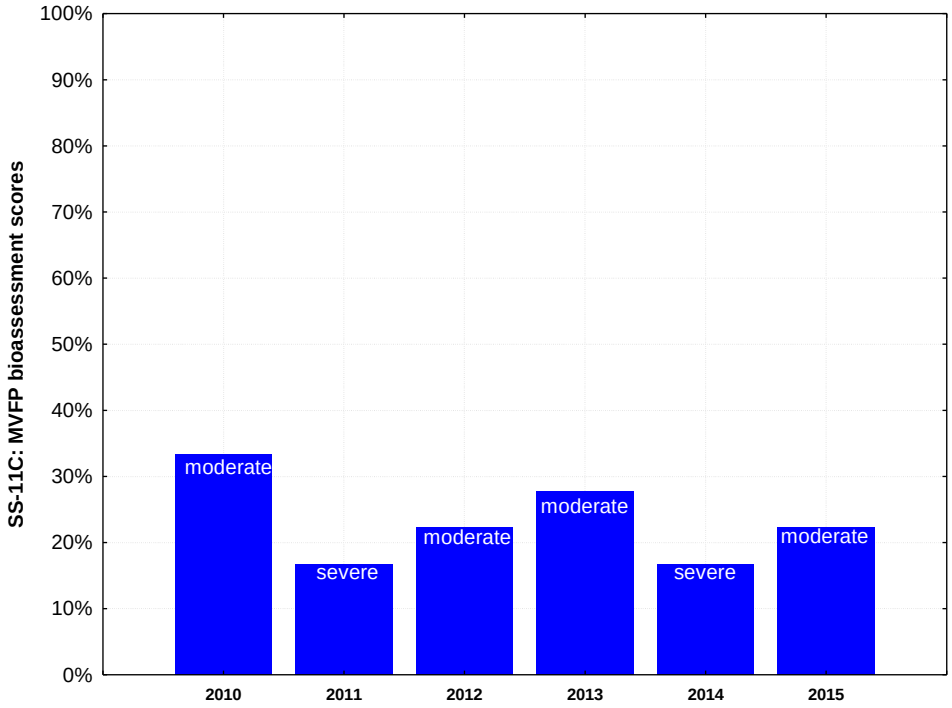

Figure 5-18. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-11C. Bars are labeled with impairment classifications.

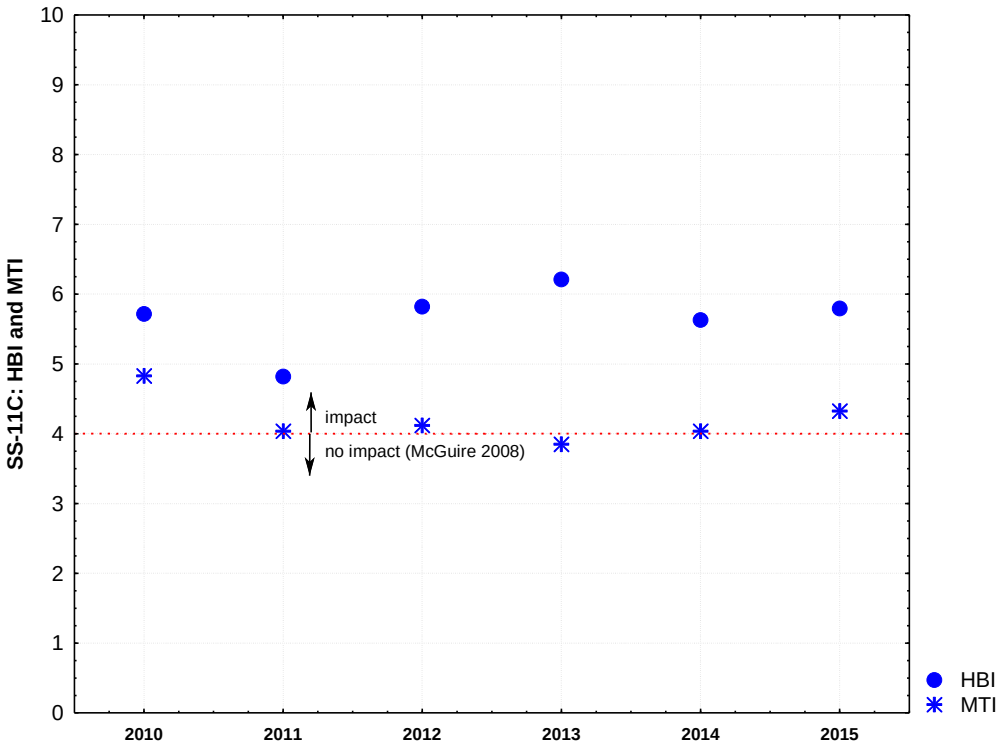

Figure 5-19. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-11C. The red dashed line represents the "no impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.3.9 SS-11D: Silver Bow Creek below Browns Gulch

5.3.3.9.1 Comparisons among Years

MVFP scores indicated severe impairment at site SS-11D in 2015, worsening since 2014 [Figure 5-20]. According to McGuire's guidance, the MTI indicated slight evidence of impairment from metals in 2015, and the HBI indicated mild-to-moderate nutrient enrichment since 2010 [Figure 5-21].

5.3.3.9.2 2015 Data

5.3.3.9.2.1 Water quality

Six mayfly specimens in three taxa (*Baetis tricaudatus* complex, *Iswaeon* sp., and *Tricorythodes* sp.) were collected from this site and the HBI was 5.70 indicating an assemblage that is somewhat tolerant of organic pollution. The sample contained no sensitive taxa and a very high percentage of pollution tolerant taxa (51.1%). The most abundant pollution tolerant organism was the net-spinning caddisfly *Cheumatopsyche* sp. (36.1%), which was also the most abundant taxon. Thus, it is not unexpected that the assemblage was dominated by collector filterers (51.4%). These results suggest that nutrient enrichment may be a problem in this reach. The MTI (4.47) suggests slight metals contamination as it was somewhat elevated over the threshold of metals contamination set by McGuire.

5.3.3.9.2.2 Thermal condition

The temperature preference of the assemblage was 18.2ºC. No cold stenotherm taxa were collected. There were also several warm-water loving taxa present with the caddisfly *Helicopsyche* sp., (7.7%) being the most abundant.

5.3.3.9.2.3 Sediment deposition

Only four caddisfly taxa were found in this sample and only the pollution tolerant, filtering collector *Cheumatopsyche* sp. was very common. The "clingers" were represented by nine taxa. These characteristics as well as an FSBI of 2.32 indicate that fine sediment may affect colonization of the biota.

5.3.3.9.2.4 Habitat diversity and integrity

Overall taxa richness (33) was low, which may reflect monotonous or disrupted instream habitats, poor water quality, or both. The absence of stoneflies may be related to reach-scale disturbances: unstable streambanks, loss of riparian function, or channel alteration are examples of such disturbances. Only one non-pioneer semivoltine taxon was present and it was uncommon (*Optioservus*, about 2.5% of the assemblage). Given these data, catastrophes such as periodic scour, dewatering, thermal stress, or toxic pollutants could have occurred here. Collectors (65.8%) dominated the functional groups, suggesting the importance of fine particulate organic matter in the energy flow in this reach. Predators (19.5%) were also common with the mite *Hygrobates* sp. (7.0%) and the Tanypodinae, *Thienemannimyia Gr.* (9.3%) the most common predators. Algal films may also have been important, since the scrapers (12.5%),

mostly *Helicopsyche* sp. (7.7%), were abundant here. On the other hand, the dearth of shredders (1.3%) suggests that large organic material such as leaves and woody debris from riparian sources was very limited or not retained in the reach.

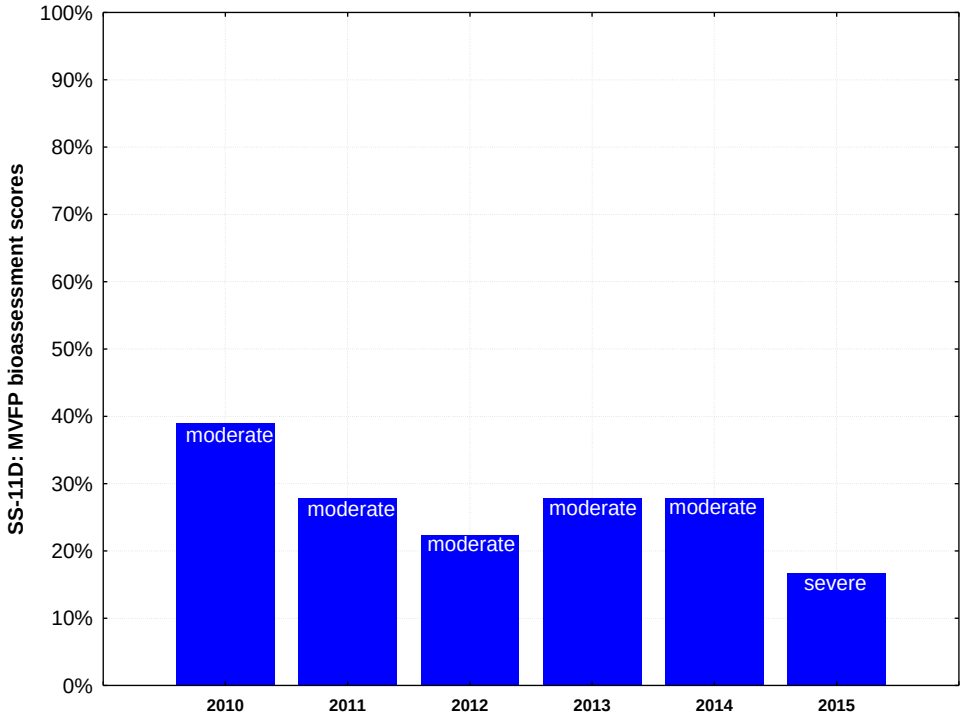

Figure 5-20. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-11D. Bars are labeled with impairment classifications.

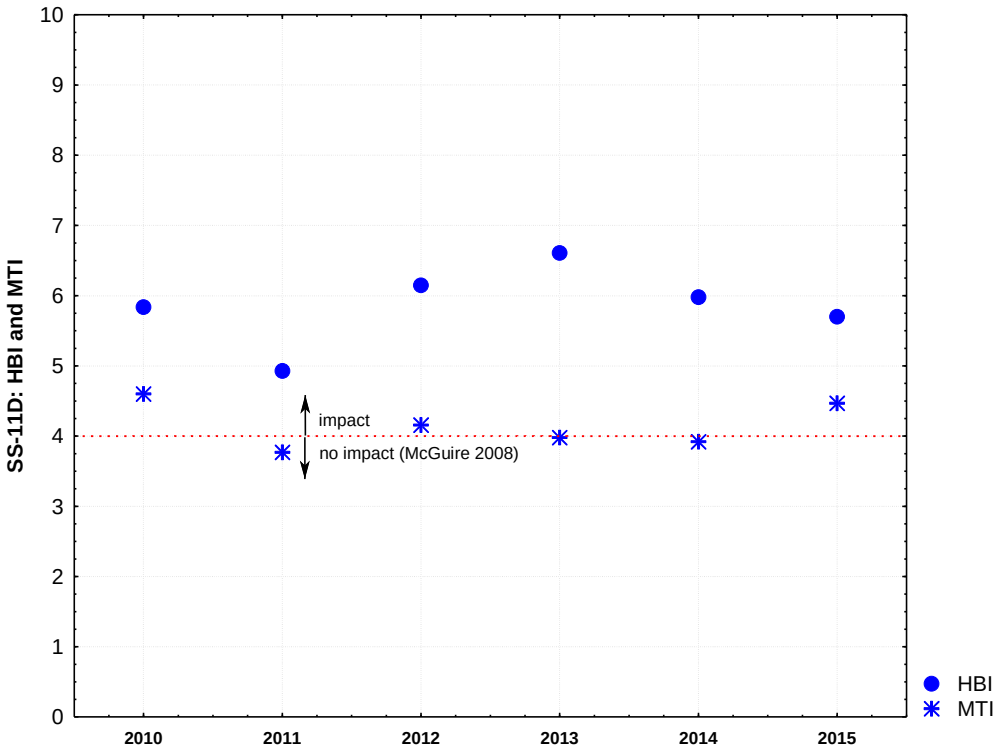

Figure 5-21. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-11D. The red dashed line represents the "no impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.3.10 SS-13: Silver Bow Creek in Reach L

5.3.3.10.1 Comparisons among Years

MVFP bioassessment index scores continued to indicate moderate impairment at site SS-13 in 2015: scores, graphed in Figure 5-22, remained unchanged since 2013. According to McGuire's guidance, the MTI indicates slight metals contamination in 2015, and the HBI indicates mild-to-moderate nutrient enrichment [Figure 5-23].

5.3.3.10.2 2015 Data

5.3.3.10.2.1 Water quality

No mayflies were collected at this site, and the biotic index value (5.31) indicated an assemblage that was moderately tolerant of organic pollution. Collector filterers, mostly *Hydropsyche* sp. (39.8%) and the pollution tolerant *Cheumatopsyche* sp. (18.3%), composed over 65% of the assemblage. Thus, nutrient enrichment may stress the fauna. In addition, a pollution tolerant assemblage was indicated by the facts that tolerant organisms composed 31.1% of the fauna and no pollution sensitive taxa were collected. The MTI (4.63) was slightly elevated over the threshold of metals contamination set by McGuire.

5.3.3.10.2.2 Thermal condition

The calculated thermal preference of the assemblage was 18.0ºC and no cold-loving taxa were collected from this site. The relative abundance of *Helicopsyche* sp. (10.6%) along with the presence of several other taxa collected here (especially the caddisfly *Oecetis sp*., amphipods, and snails) also suggests warm water temperatures.

5.3.3.10.2.3 Sediment deposition

Five caddisfly taxa were found in this sample with the filtering collectors *Hydropsyche* sp. and *Cheumatopsyche* sp. and the scraper *Helicopsyche* sp. being very common. However, the "clingers" were represented by only nine taxa. The FSBI (4.06) indicated a moderately sediment-tolerant fauna. Thus, inhibition of colonization of stony substrates by fine sediment cannot be ruled out.

5.3.3.10.2.4 Habitat diversity and integrity

Overall taxa richness (24) was low, suggesting limited instream habitats or poor water quality or both. The absence of stoneflies may also be related to poor water quality, but could also reflect disturbed reach-scale habitat features. Long-lived taxa (2) were only represented by a few individuals: catastrophes such as toxic pollutants, scour, dewatering, or thermal extremes cannot be ruled out. Collector filterers (66.7%) dominated the functional composition of the assemblage suggesting that fine particulate organic matter and its associated bacteria are important to the energy flow in this reach. Shredders (<1.0%) were almost absent, suggesting either the lack of input of coarse particulate organic matter from streamside vegetation or the lack of retention of such material, or both. Other functional groups were well represented.

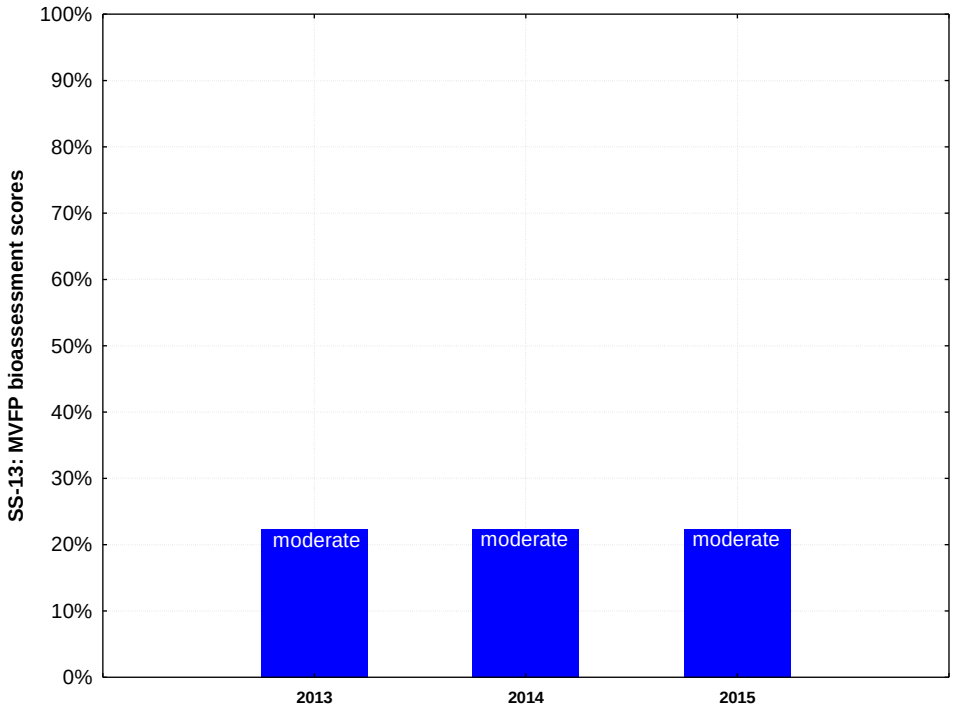

Figure 5-22. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-13. Bars are labeled with impairment classifications.

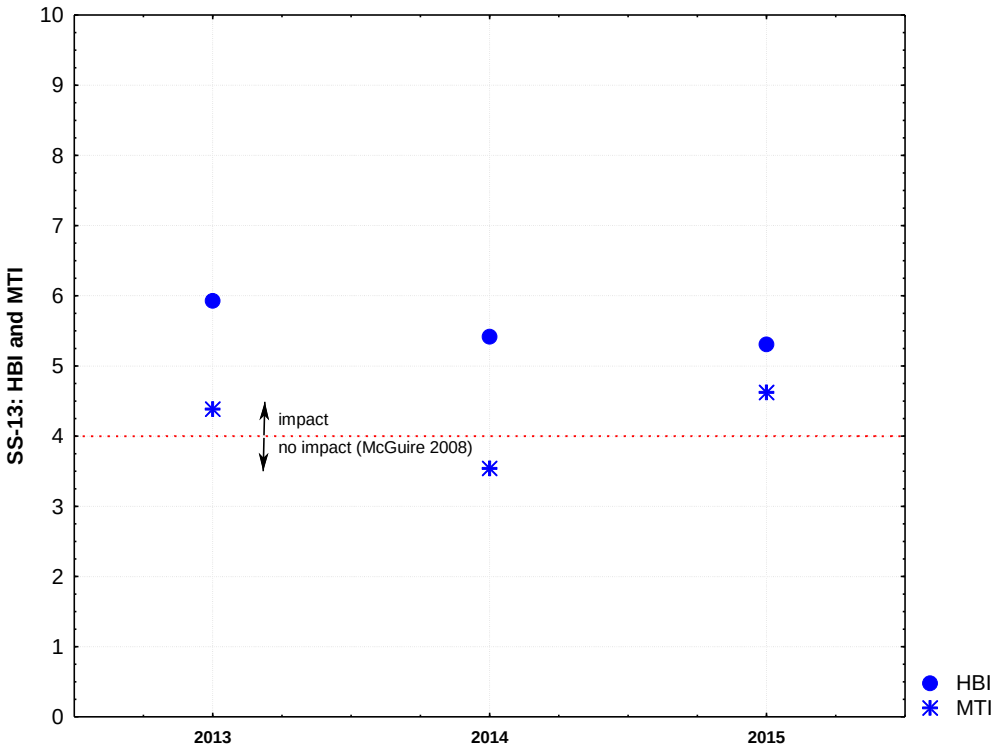

Figure 5-23. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-13. The red dashed line represents the "no impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.3.11 SS-14: Silver Bow Creek at Miles Crossing

5.3.3.11.1 Comparisons among Years

MVFP scores have consistently indicated moderate impairment at site SS-14 since 2010 [Figure 5-24]. According to McGuire's guidance, the MTI indicates no metals contamination in 2015, and the HBI indicates moderate nutrient enrichment [Figure 5-25].

5.3.3.11.2 2015 Data

5.3.3.11.2.1 Water quality

Two mayfly taxa (*Iswaeon* sp. *and Tricorythodes* sp.) were collected from this site; however, they were represented by only two individuals in each taxon. The HBI was 5.18, which indicated moderate impairment from organic pollution. *Microtendipes* sp. (23.7%) was the dominant organism in the sample, thus the percentage of hemoglobin-bearing taxa (24.1%) was very high indicating possible hypoxic conditions in the sediments. Collector filterers (48.4%) dominated the functional mix. Consequently, nutrient enrichment is indicated in this reach. No pollution sensitive taxa were counted in this sample and pollution tolerant organisms (33.2%) were very abundant. The MTI (3.90) indicated no impact from metals contamination based on McGuire's criteria.

5.3.3.11.2.2 Thermal condition

The temperature preference of the assemblage was 18.3ºC and several warm-water loving taxa were common (e.g., *Helicopsyche* sp.) or present (e.g., leeches, *Oecetis* sp.). No cold stenotherms were found in this sample.

5.3.3.11.2.3 Sediment deposition

Seven caddisfly taxa, four of which were common, and 10 "clinger" taxa were present in the sample. Consequently, sediment deposition probably did not appreciably limit colonization of stony substrates in this reach. The FSBI (3.93) indicated a moderately sediment-tolerant assemblage.

5.3.3.11.2.4 Habitat diversity and integrity

Low overall taxa richness (29) may have been associated with water quality impairment or limited habitats, or both. No stoneflies were collected and low diversity in this group may reflect poor water quality or disrupted reach-scale habitat features, such as unstable streambanks, loss of riparian function, or altered channel morphology. Catastrophes may disrupt the life cycles of long-lived organisms because only one semivoltine taxon was counted and it composed only 1.6% of the assemblage. Collector filterers (48.4%) followed by scrapers (23.7%) were the most abundant functional groups. This indicated the importance of fine particulate organic matter and in-stream algal production to the energy flow in this system. Other functional groups were well represented.

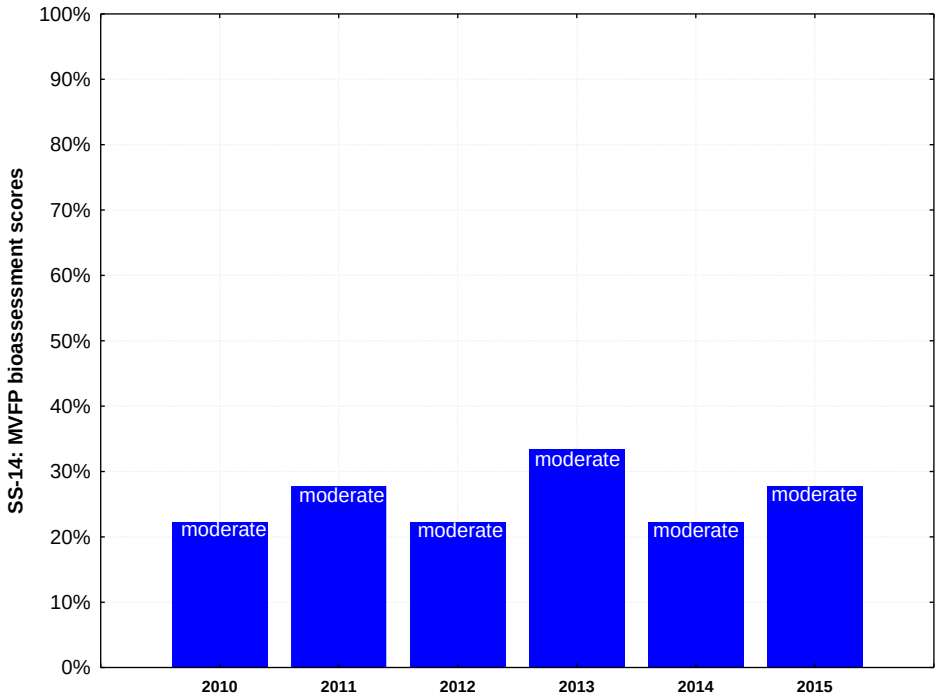

Figure 5-24. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-14. Bars are labeled with impairment classifications.

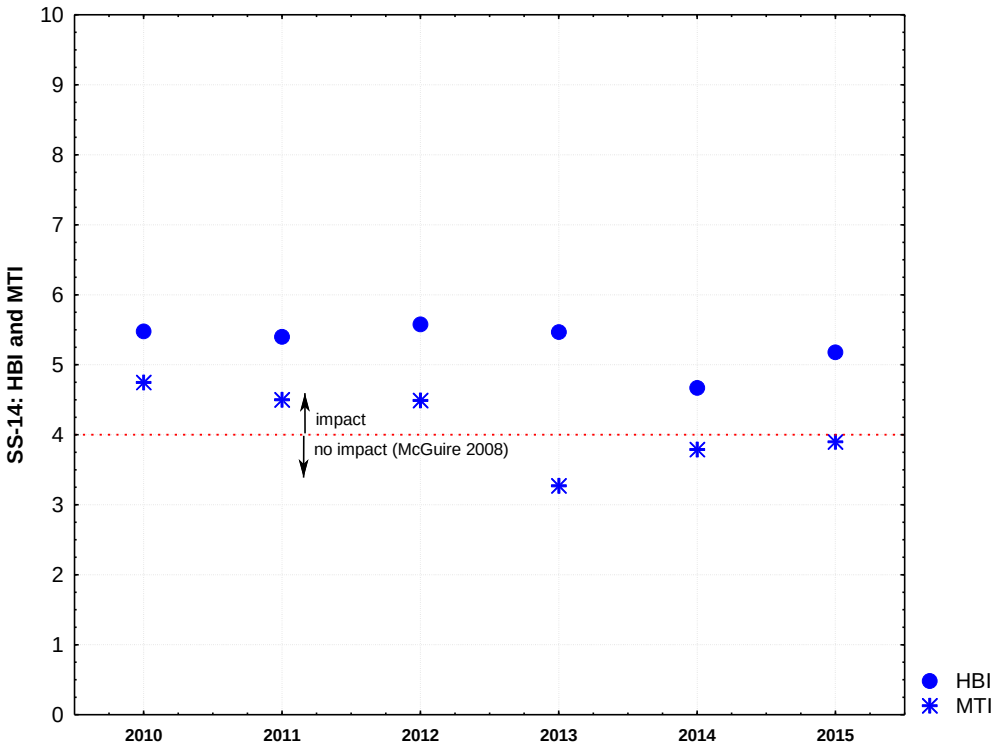

Figure 5-25. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-14. The red dashed line represents the "no impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.3.12 SS-15A: Silver Bow Creek above German Gulch

5.3.3.12.1 Comparisons among Years

Site SS-15A was severely impaired in 2015, as measured by the MVFP bioassessment index, suggesting worsening conditions since 2014. Scores since 2010 at this site are graphed in Figure 5-26. According to McGuire's guidance, the MTI indicated no impairment from metals in 2015, which is an improvement over all previously sampled years. The HBI also improved, indicating no nutrient enrichment in 2015 [Figure 5-27].

5.3.3.12.2 2015 Data

5.3.3.12.2.1 Water quality

Mayflies were represented by a single taxon, the ubiquitous *Baetis tricaudatus*, which was common, accounting for >6% of the sampled assemblage. The HBI (3.97) was lower than any of the upstream sites and indicated an assemblage that had little potential for impacts from organic pollution. However, collector filterers (47.3%), especially the caddisfly *Hydropsyche* sp., dominated the functional composition of the assemblage. Thus, some nutrient enrichment cannot be ruled out in this reach. No pollution sensitive taxa were collected and tolerant organisms composed 16.9% of the invertebrate assemblage. The MTI (3.75) was not indicative of metals pollution. Indeed, the metals-intolerant caddisfly *Lepidostoma* sp. (22.3%) was common.

5.3.3.12.2.2 Thermal condition

No cold stenotherm taxa were found in this sample. The temperature preference of the assemblage was 16.1ºC. At least one warm-water preferring taxon was common (*Helicopsyche* sp., 12.9%) and several taxa were present (e.g., snails).

5.3.3.12.2.3 Sediment deposition

Four caddisfly taxa and only seven "clinger" taxa, both of which were not as diverse as expected, were counted. Thus limitation of colonization of stony sediments by the deposition of fine sediments cannot be ruled out. This result was supported by an FSBI value (4.06) that indicated a moderately sediment-tolerant assemblage.

5.3.3.12.2.4 Habitat diversity and integrity

The overall taxa richness (22) was lower than expected for a low-to-mid order stream in the Middle Rockies ecoregion. No stoneflies were collected. Low overall diversity and the absence of stoneflies may both be related to poor water quality or to limited instream habitats, or both. Long-lived taxa (1, *Optioservus* sp.) were poorly represented: catastrophic scour, thermal extremes, dewatering, or toxic pollutants cannot be ruled out. Filterers, especially the net-spinner *Hydropsyche* sp. (42.2%), strongly dominated the functional composition of the assemblage. It seems likely that fine organic particulate matter, probably a result of algal decomposition in upstream reaches, was the dominant energy source here. Other functional groups were well represented.

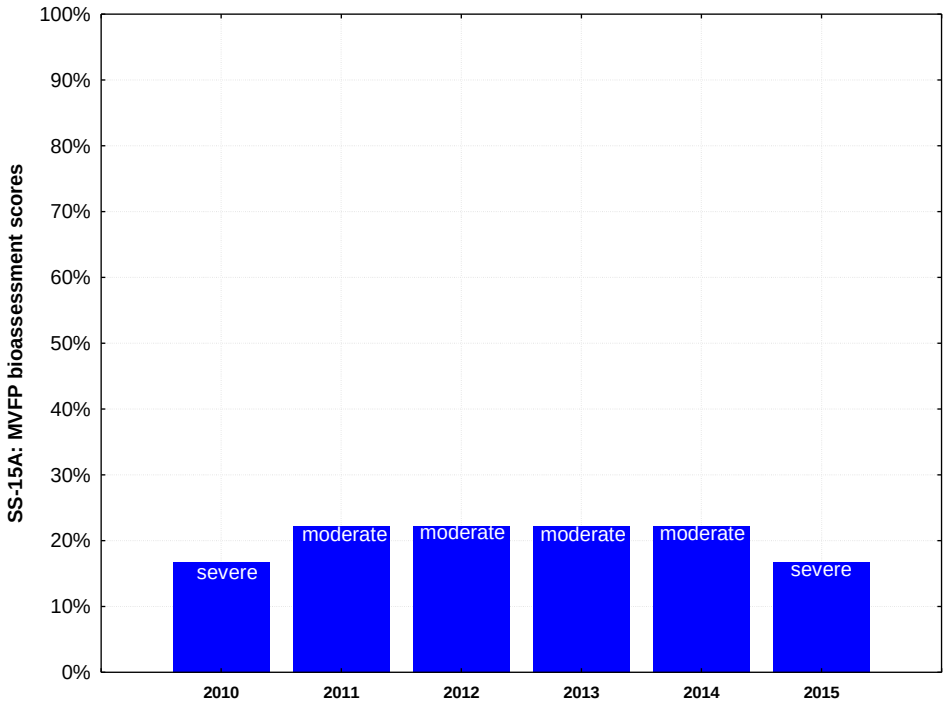

Figure 5-26. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-15A. Bars are labeled with impairment classifications.

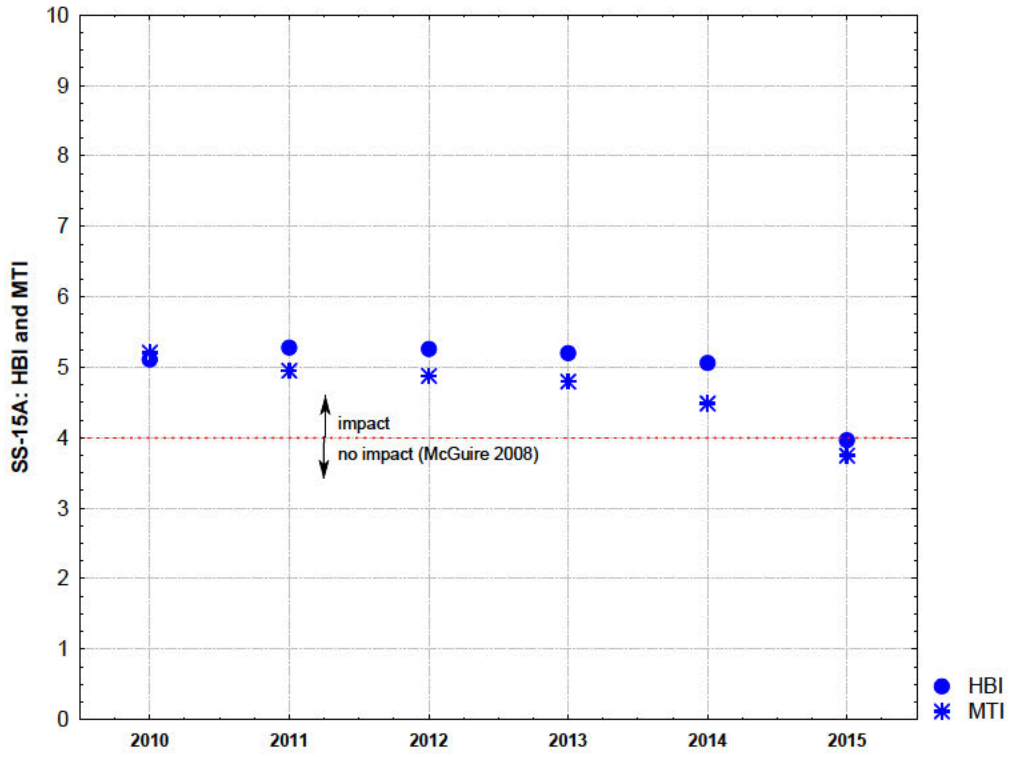

Figure 5-27. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-15A. The red dashed line represents the "no impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.3.13 SS-15B: Silver Bow Creek below German Gulch

5.3.3.13.1 Comparisons among Years

MVFP scores at site SS-15B remained relatively stable in the years 2014-2015. Moderate impairment continued to be indicated in 2015 [Figure 5-28]. According to McGuire's guidance, the MTI very slightly exceeded the impairment threshold in 2015, as did the HBI [Figure 5-29].

5.3.3.13.2 2015 Data

5.3.3.13.2.1 Water quality

The Silver Bow Creek site below German Gulch supported three mayfly taxa (*Baetis tricaudatus* complex, *Drunella grandis*, *Cinygmula* sp.). Although none of these taxa were abundant, the presence of the pollution sensitive *Drunella grandis* and the heptageniid *Cinygmula* sp. probably signals improved water quality compared to the upstream Silver Bow sites. The HBI (4.27) indicated an assemblage that was only slightly impacted by organic pollution, but collector filterers (56.6%) still dominated the functional mix of this site. Thus, nutrient enrichment cannot be ruled out. One pollution sensitive taxon (*Drunella grandis)* was collected and the abundance of pollution tolerant organisms (13.1%) was the lowest of any of the upstream sites also supporting the contention of improved water quality at this site compared to the upstream ones. The MTI (4.05) was only slightly above the threshold for metals contamination set by McGuire. Thus the MTI, the presence of the heptageniid mayfly, and the commonness of the metals intolerant caddisfly *Lepidostoma* sp. (16.3%) suggests no evidence for metals contamination.

5.3.3.13.2.2 Thermal condition

No cold stenotherm taxa were collected. However, the temperature preference (14.9ºC) calculated for this assemblage was the second lowest of the 2015 study sites and was much cooler than any of the upstream study sites.

5.3.3.13.2.3 Sediment deposition

Six caddisfly taxa and 15 "clinger" taxa were present in the sample. Consequently, sediment deposition probably did not appreciably limit colonization of stony substrates in this reach. The FSBI (4.20) indicated an assemblage with moderate sediment tolerance.

5.3.3.13.2.4 Habitat diversity and integrity

Taxa richness (31) was lower than expected and only two stonefly taxa (the nemourid, *Zapada* sp.; the perlid, *Hesperoperla pacifica*), both represented by only one specimen, were found in this sample. Thus, instream habitats may have been monotonous or disrupted and streambanks may be unstable, channel morphology may be altered, or riparian function may be poor. It seems likely that catastrophes that would limit long life cycles were not influential here because five long-lived taxa were counted in the sampled assemblage. Collector filterers, especially *Hydropsyche* sp. (49.2%), strongly dominated the functional mix, suggesting that

suspended organic particles were an abundant energy source in this reach. All other functional groups were represented.

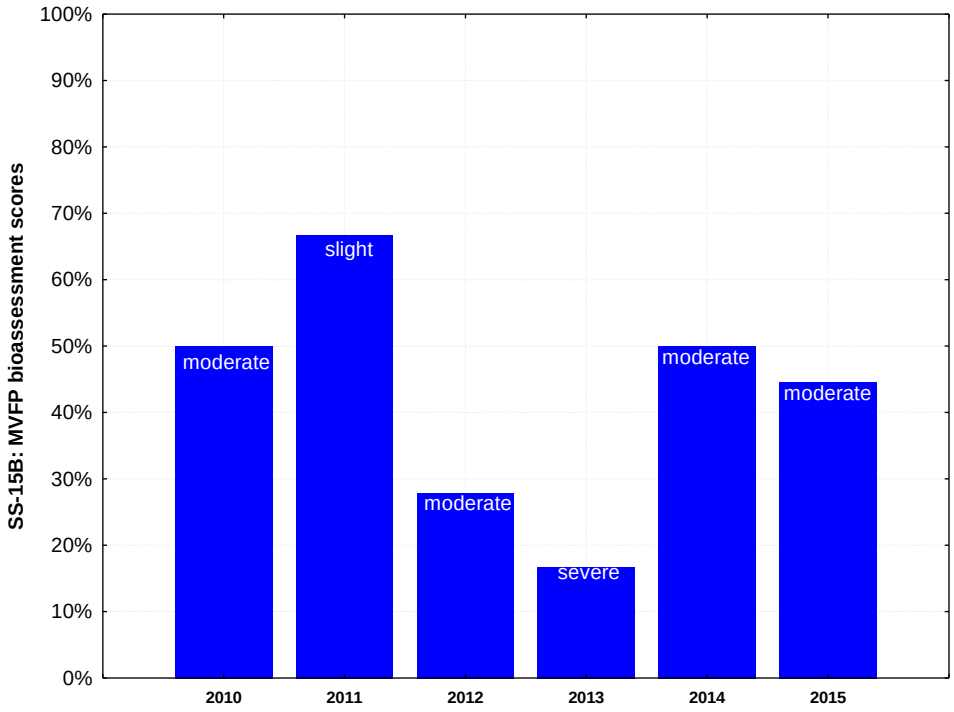

Figure 5-28. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-15B. Bars are labeled with impairment classifications.

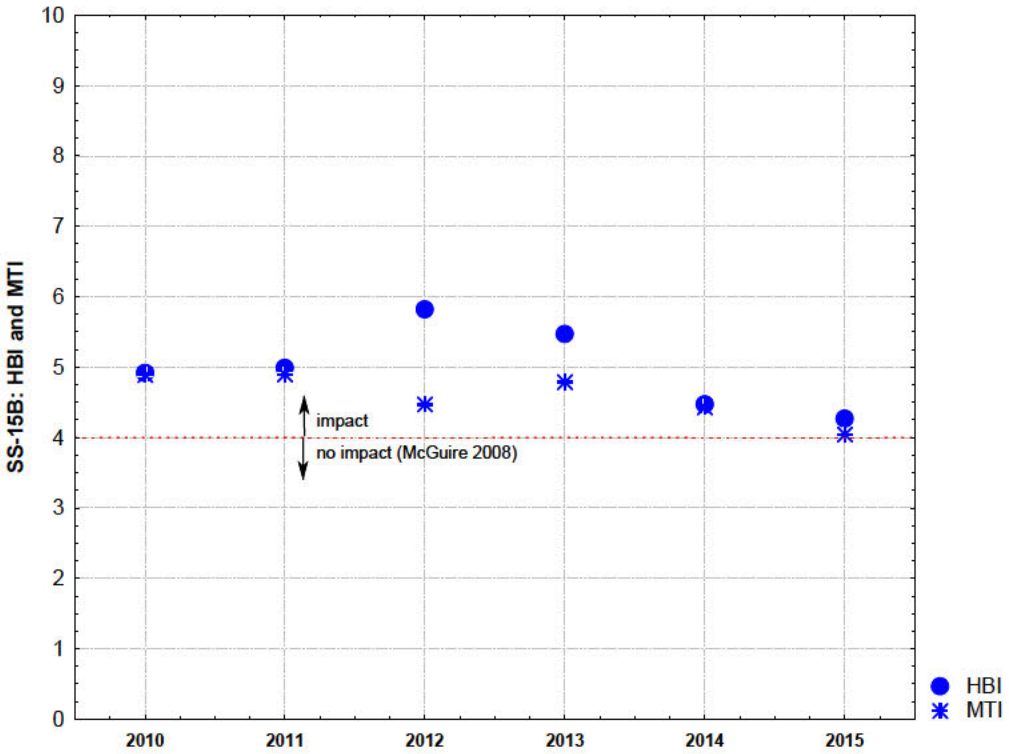

Figure 5-29. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-15B. The red dashed line represents the "no impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.3.14 SS-15G: German Gulch near Confluence

5.3.3.14.1 Comparisons among Years

In 2015, MVFP scores at site SS-15G exhibited slight improvement, and continued to indicate slight impairment. Scores are graphed in Figure 5-30. According to McGuire's guidance, the HBI and MTI metrics indicate no evidence of impairment by metals contamination or nutrient enrichment at this site [Figure 5-31].

5.3.3.14.2 2015 Data

5.3.3.14.2.1 Water quality

Water quality appeared to be the best of any of the sites sampled in 2015. Six mayfly taxa, more than any other site, made up almost 30% of the sampled organisms. Common mayflies included the heptageniids *Cinygmula* sp. (16.0%) and *Rhithrogena* sp. (3.1%) and the ubiquitous *Baetis tricaudatus* complex (9.1%). The HBI (2.35) was also the lowest of any site in 2015. In addition, collector filters (8.2%) made up a relatively small portion of the assemblage and hemoglobin-bearing organisms were absent. These features suggest that organic pollution had little influence on the fauna of this site. However, only one pollution sensitive taxon (*Drunella doddsii*) represented by one specimen was found at this site and tolerant organisms (9.1%) were common. The MTI (2.43) was the lowest of any site in 2015. This combined with the commonness of organisms with demonstrated sensitivity to metals including the heptageniid mayflies and the caddisfly *Lepidostoma* sp. (19.8%) suggest metals did not influence this reach.

5.3.3.14.2.2 Thermal condition

One cold stenotherm taxon (the ephemerellid mayfly *Drunella doddsii*) occurred in this sample, but it was represented by only one individual. However, no cold-loving taxa occurred at any of the sites upstream of this site. The temperature preference of this assemblage was 14.0ºC, which is the lowest of any site in the study in 2015.

5.3.3.14.2.3 Sediment deposition

Sediment deposition probably did not appreciably limit colonization of stony substrates in this reach because seven caddisfly taxa (many abundant) and 20 "clinger" taxa were collected. The FSBI (4.41) indicated an assemblage with moderate sediment tolerance.

5.3.3.14.2.4 Habitat diversity and integrity

Overall taxa richness (35) was somewhat lower than expected, which may be related to limited instream habitats. However, all other ecological characteristics indicated little impact. Three stonefly taxa were collected and *Zapada cinctipes* (6.3%) and *Hesperoperla pacifica* (6.9%) were common. Thus, it seems likely that reach-scale habitat features such as streambanks, channel morphology, and riparian zone function were largely intact. Seven long-lived taxa were collected thus, catastrophes that would abort long life cycles were probably not influential here. All expected functional components were represented in apparently appropriate proportions with shredders (28.2%) being the dominant group.

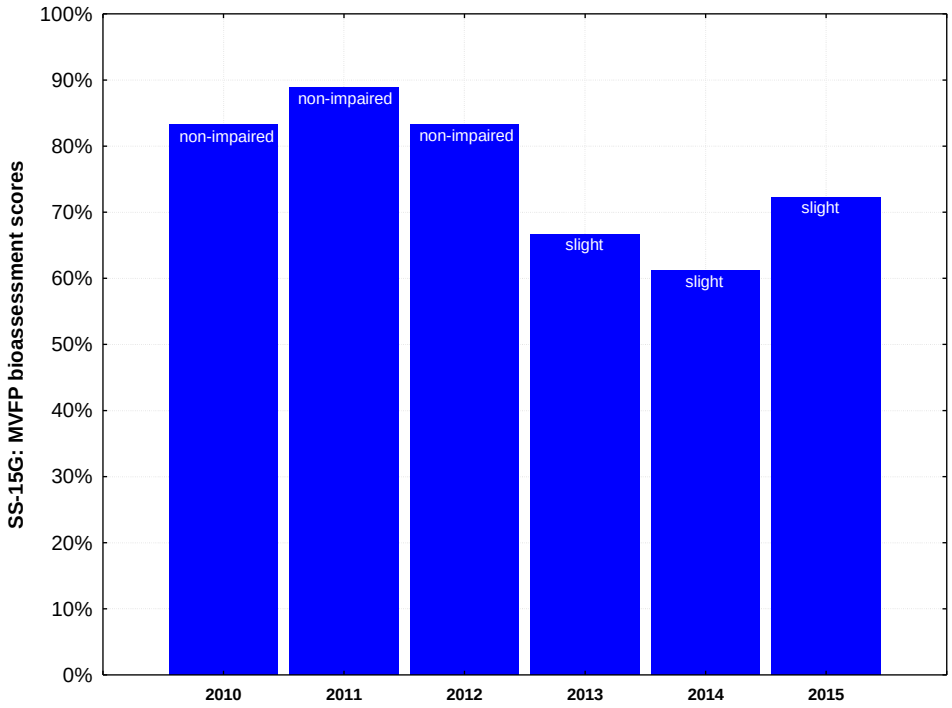

Figure 5-30. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-15G. Bars are labeled with impairment classifications.

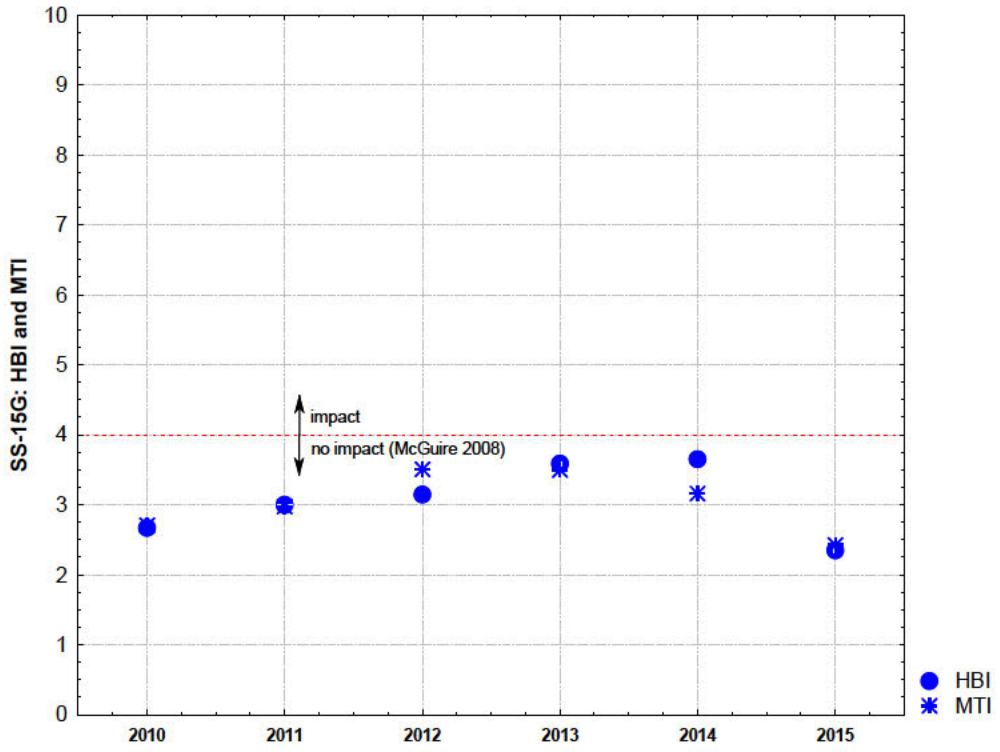

Figure 5-31. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-15G. The red dashed line represents the "no impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.3.15 SS-16B: Silver Bow Creek in Reach P near Fairmont

5.3.3.15.1 Comparisons among Years

Site SS-16B has been rated as severely impaired by the MVFP index in all three years of sampling [Figure 5-32]. Scores were slightly higher in 2015 compared to 2014. According to McGuire's guidance, the HBI and MTI metrics indicate no evidence of impairment by metals contamination or nutrient enrichment at this site [Figure 5-33].

5.3.3.15.2 2015 Data

5.3.3.15.2.1 Water quality

The HBI (3.06) was not above the threshold set for water quality impairment. However, only a single mayfly specimen of one taxon (*Diphetor hageni*) was collected and collector filterers (29.0%) were common at this site. Thus, nutrient enrichment cannot be ruled out in this reach. No pollution sensitive taxa were collected and the assemblage was strongly dominated by pollution tolerant organisms (50.3%). The low MTI (3.19) and the commonness of organisms that are sensitive to metals (e.g., the caddisfly *Lepidostoma* sp., 12.9%) suggest metals did not influence this reach.

5.3.3.15.2.2 Thermal condition

The temperature preference calculated for the assemblage at this site was 16.5ºC. No cold stenotherm taxa were found in the sample and organisms that prefer warm water, including the caddisflies *Helicopsyche* sp. (47.4%) and *Brachycentrus occidentalis* (16.1%), were abundant.

5.3.3.15.2.3 Sediment deposition

Five caddisfly taxa were collected in this reach. However, low diversity among "clingers" (seven taxa) suggests that sediment deposition may have limited colonization of stony substrate habitats. The FSBI value (4.13) implies a moderately sediment-tolerant assemblage.

5.3.3.15.2.4 Habitat diversity and integrity

Overall taxa richness (17) was very low: instream habitats may have been monotonous or disrupted. Similar to many other Silver Bow Creek sites, stoneflies were absent here: this may be related to altered channel morphology, loss of riparian function, or unstable streambanks. Semivoltine taxa were not diverse (two taxa, *Optioservus* sp., *Brachycentrus occidentalis*) and only one, *B. occidentalis*, was abundant. Consequently, catastrophes such as dewatering, scour, toxic pollutants, or thermal extremes cannot be ruled out. Scrapers (50.7%), especially *Helicopsyche* sp., dominated the functional mix, suggesting that the canopy might be open. Filterers (29.0%) were also common. Other functional groups occurred in expected proportions.

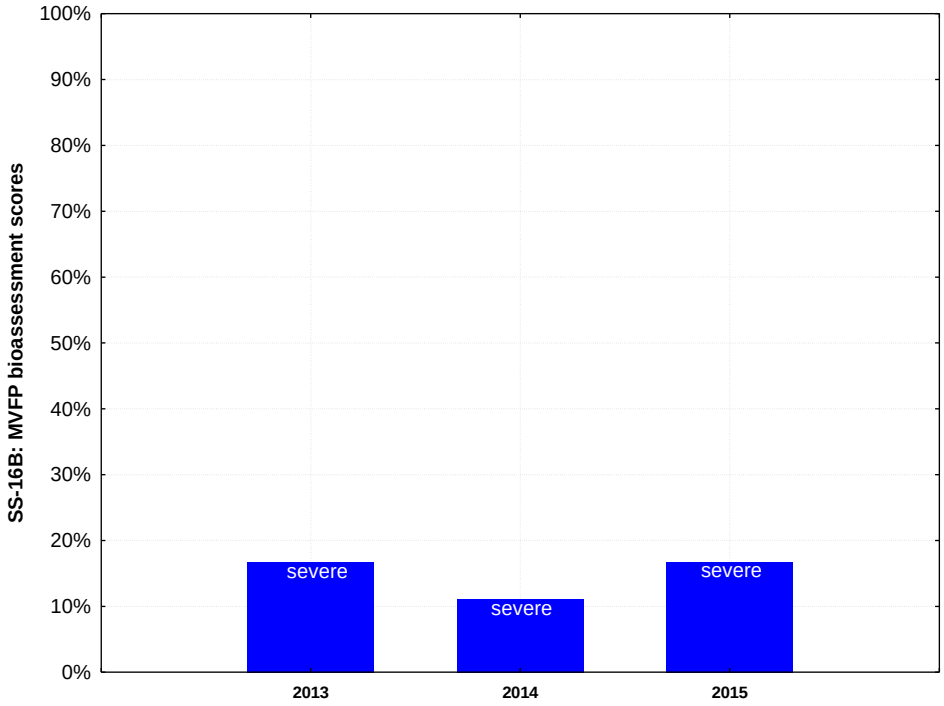

Figure 5-32. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-16B. Bars are labeled with impairment classifications.

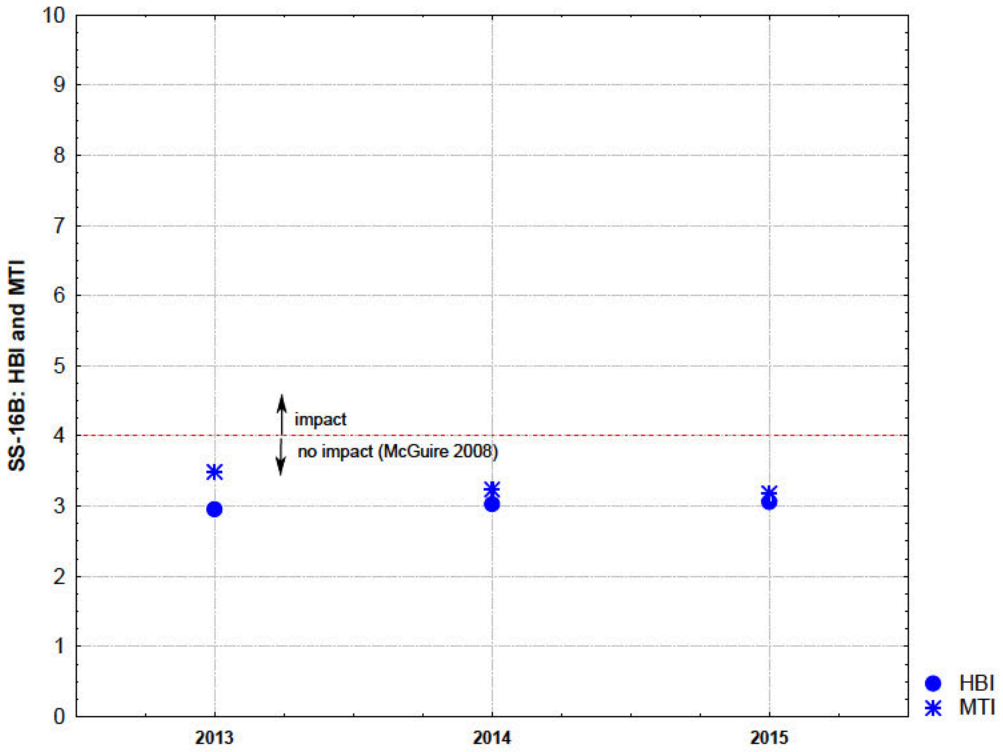

Figure 5-33. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-16B. The red dashed line represents the "no impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.3.16 SS-17D: Silver Bow Creek below Stewart Street at Opportunity

5.3.3.16.1 Comparisons among Years

Moderate impairment has been indicated at site SS-17D in each year since 2013 [Figure 5-34]. According to McGuire's guidance, the HBI and MTI metrics indicate no evidence of impairment by metals contamination or nutrient enrichment at this site [Figure 5-35] in 2015.

5.3.3.16.2 2015 Data

5.3.3.16.2.1 Water quality

Most indicators of water quality suggest impaired conditions at this site: no mayflies or sensitive taxa were collected, pollution tolerant organisms (29.7%) were a large component of the assemblage, the hemoglobin-bearing midge *Microtendipes* sp. (15.2%) was common, and collector filterers (60.3%) dominated the functional composition of the assemblage. However, the HBI (3.67) indicated little impact from organic pollution. The pattern of high abundance of collector filterers is sometimes interpreted as evidence of nutrient enrichment. In addition, the preponderance of hemoglobin-bearing organisms suggests hypoxic conditions in the sediments that also may be indicative of nutrient enrichment. The MTI (3.54) does not indicate

impairment by metals, a conclusion that is also supported by the abundance of metals sensitive organisms (e.g., *Lepidostoma* sp. (7.0%).

5.3.3.16.2.2 Thermal condition

No cold stenotherm taxa were found in the sample and organisms that prefer warm water, including the caddisflies *Helicopsyche* sp. (27.0%) and *Brachycentrus occidentalis* (22.7%), were abundant. The temperature preference of the assemblage was calculated at 16.4ºC.

5.3.3.16.2.3 Sediment deposition

Six caddisfly taxa (most of which were common), but only eight "clinger" taxa were counted. Sediment deposition may limit colonization of stony substrate habitats in this reach. The FSBI value (4.85) indicates a relatively sediment-tolerant assemblage.

5.3.3.16.2.4 Habitat diversity and integrity

Overall taxa richness (25) was very low and no stoneflies were found in the sample. Thus, instream and reach-scale habitat features such as streambanks, channel morphology, or riparian function may have been disturbed. That three semivoltine taxa occurred in the sample, including the abundant *Brachycentrus occidentalis,* makes it unlikely that catastrophes interrupted the long life cycles of some organisms. Collector filterers, especially caddisflies, strongly dominated the functional composition of the assemblage suggesting that fine organic particulates in suspension were an important energy source in the reach. Scrapers (29.7%) were also common suggesting that autochthonous production was also important in this reach. Other functional groups were within expectations.

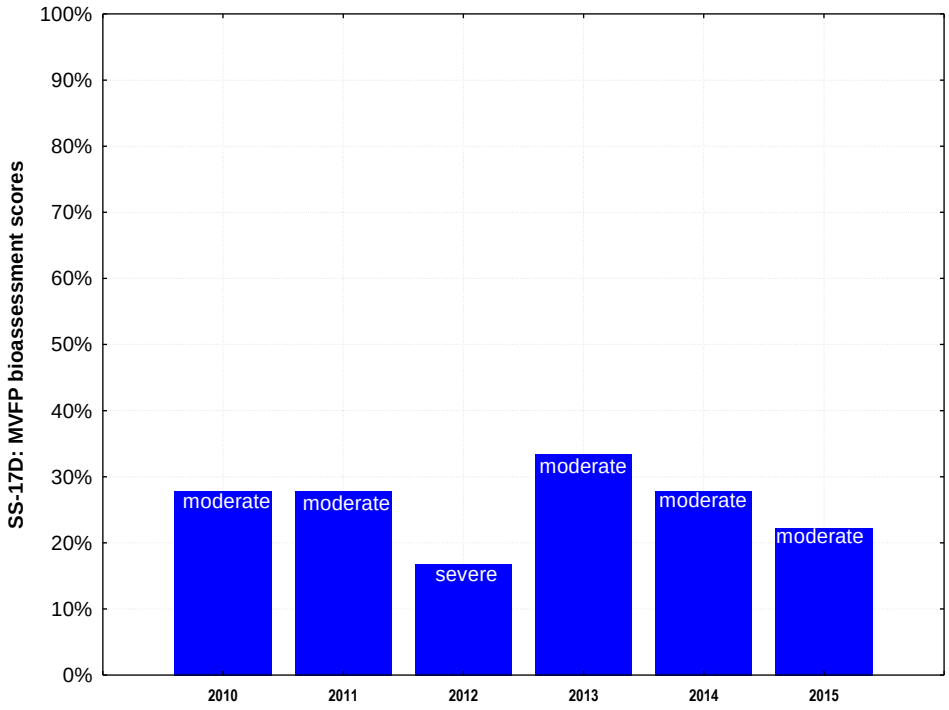

Figure 5-34. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-17D. Bars are labeled with impairment classifications.

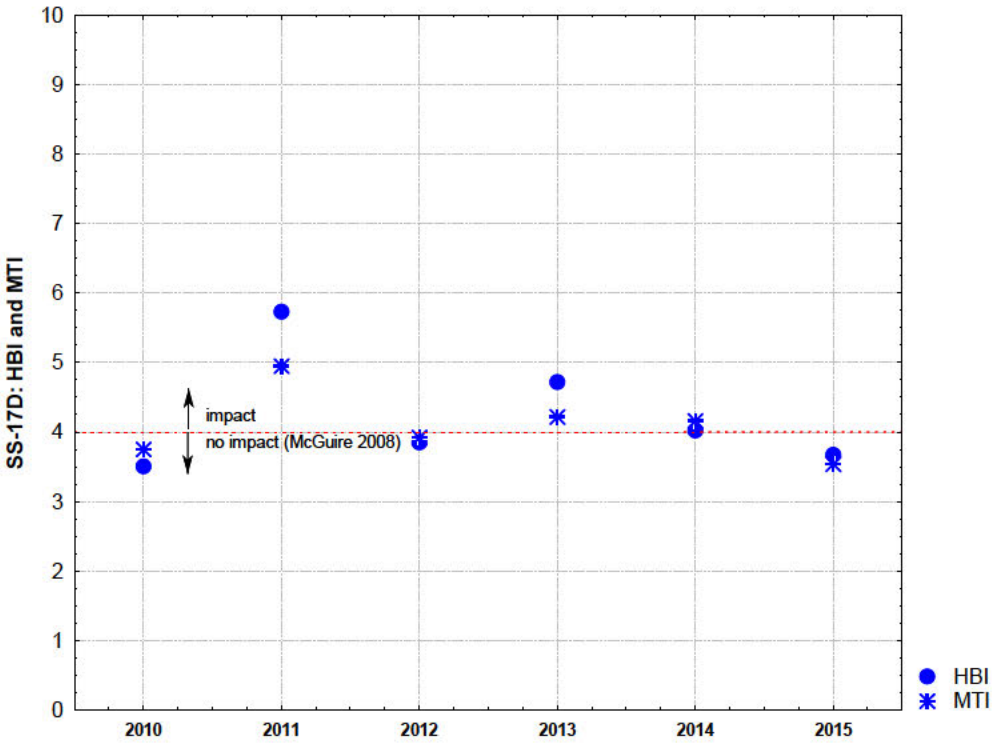

Figure 5-35. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-17D. The red dashed line represents the "no impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.3.17 SS-19: Silver Bow Creek at Frontage Road

5.3.3.17.1 Comparisons among Years

Moderate impairment has been indicated at site SS-19 in both 2014 and 2015 [Figure 5-36]. According to McGuire's guidance, the MTI metric indicated no evidence of impairment by metals contamination, but moderate impairment by nutrient enrichment was indicated by the HBI [Figure 5-37] in 2015.

5.3.3.17.2 2015 Data

5.3.3.17.2.1 Water quality

Four mayfly taxa (*Baetis tricaudatus* complex, *Iswaeon* sp., *Ephemerella* sp., *Tricorythodes* sp.) were collected at this site, but only *B. tricaudatus* (6) and *Tricorythodes* sp. (2) were represented by more than one specimen. The biotic index value (5.72) indicated an assemblage tolerant of organic pollution. Filter-feeders (67.4%), especially the chironomid *Microtendipes* sp. (56.5%), which was the dominant organism in the sample, and hemoglobin-bearing taxa (57.1%, again mostly *Microtendipes* sp.) were very common in this assemblage. These findings suggest that water quality was impaired through nutrient enrichment and that there was additional stress associated with hypoxic conditions. No pollution sensitive organisms were collected; however, pollution tolerant organisms composed only 6.5% of the sample. Contamination by metals was not indicated because the MTI (4.05) was only slightly elevated over McGuire's threshold and the metals sensitive caddisfly *Lepidostoma* sp. was present in the sample.

5.3.3.17.2.2 Thermal condition

One cold stenotherm taxon was recorded from this site: the limnephilid caddisfly *Psychoglypha* sp., which was represented by only one specimen. The temperature preference of the assemblage was 16.4ºC.

5.3.3.17.2.3 Sediment deposition

It seems unlikely that sediment deposition influenced the fauna at this site as eight caddisfly taxa and 11 "clinger" taxa were counted in the sample. The FSBI value (4.80) indicated a moderately sediment-tolerant assemblage.

5.3.3.17.2.4 Habitat diversity and integrity

Overall taxa richness (31) was somewhat lower than expected and the stonefly *Skwala* sp. was present, but only one individual was counted. Consequently, monotonous or disturbed instream habitats and unstable streambanks, loss of riparian function, or altered channel morphology are suggested. Catastrophic dewatering, thermal extremes, sediment pulses or toxic inputs cannot be ruled out, because long-lived taxa (2, *Brachycentrus occidentalis* and *Optioservus* sp.) were not diverse and only *B. occidentalis* (5.3%) was somewhat common. Collector filterers (67.4%) and collector gatherers (22.1%) overwhelmed the functional composition of the assemblage indicating that fine particulate matter was the dominant energy source in this reach. Other functional groups were not well represented.

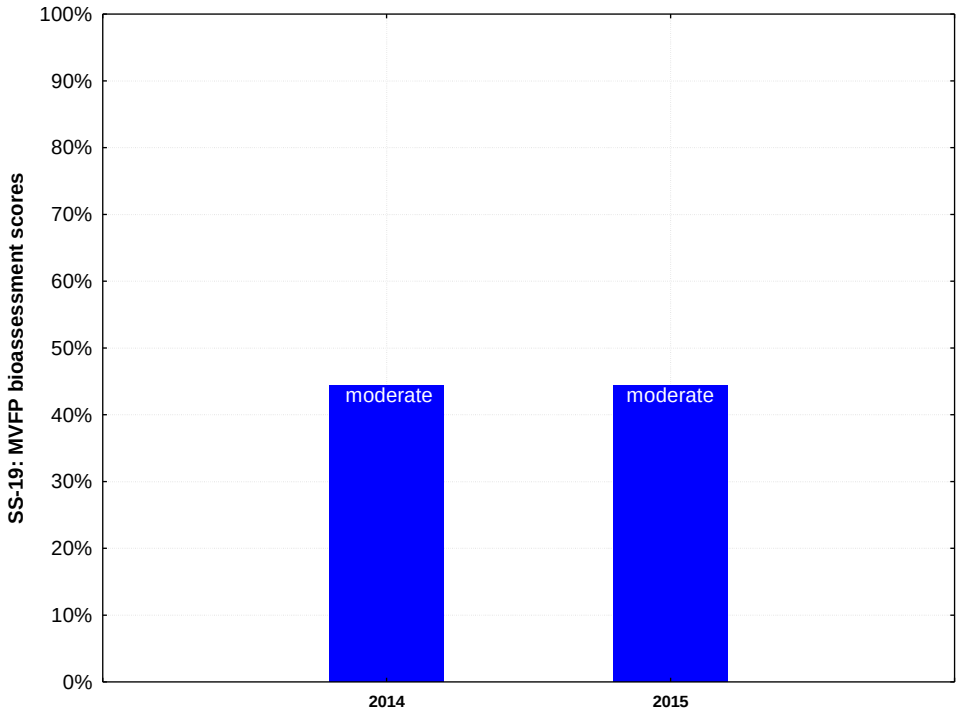

Figure 5-36. Montana Valley and Foothill Prairies (MVFP) bioassessment scores: comparison among years for site SS-19. Bars are labeled with impairment classifications.

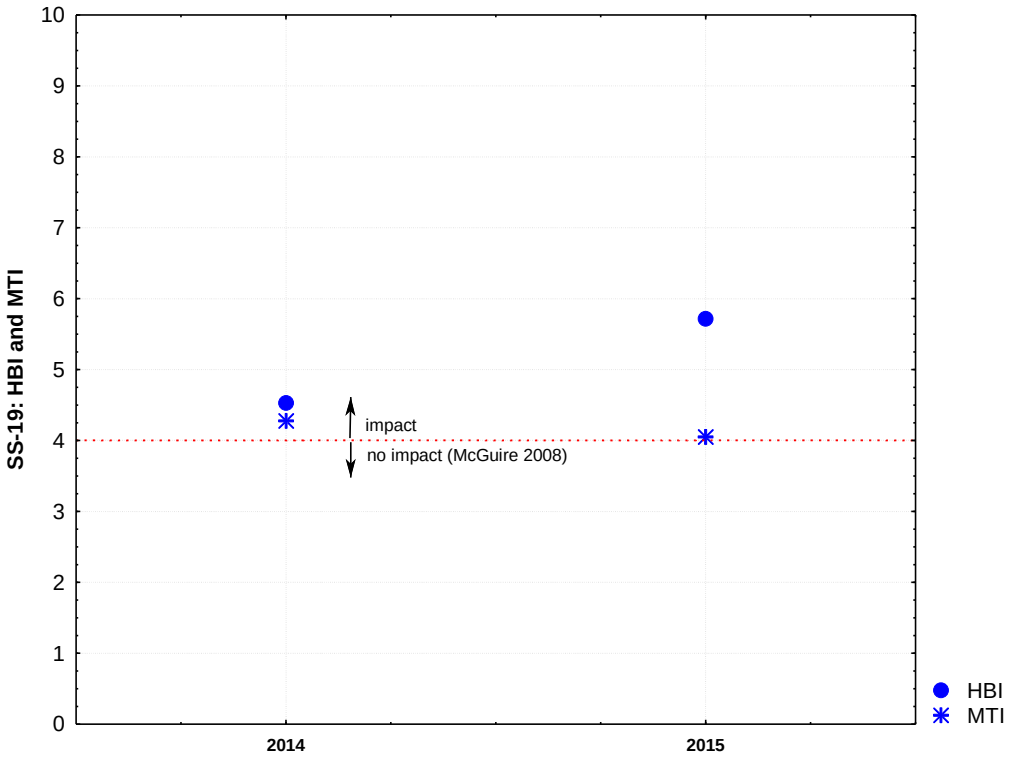

Figure 5-37. Hilsenhoff Biotic Index (HBI) and metals tolerance index (MTI) values: comparison among years for site SS-19. The red dashed line represents the "no impact" threshold for both metrics established by McGuire for the Clark Fork River basin.

5.3.4 Habitat Assessment Data

Subjective visual assessments of habitat parameters are summarized in Table 5-7. The majority of sites attained scores indicating sub-optimal habitat conditions: six sites (SS-10A, SS10B, SS-11C, SS-13, SS-15G, and SS-16B) were judged to have optimal habitat conditions. Similar to 2014, several of the uppermost sites (SS-01, SS-05A, and SS-07), as well as the lowermost site (SS-19), attained the lowest habitat scores. These sites were generally noted to have poor or marginal instream habitat conditions, a lack of streambank stability and riparian habitat.

Sites located in reaches between the Butte WWTP and German Gulch (SS-08, SS-10A, SS-10B, SS-11C, SS-11D, SS-13, SS-14, SS-15A, and SS-15B) were reported to have, in general, somewhat better, and in some cases optimal, instream habitat conditions and better riparian zone integrity.

A lack of riparian vegetation was noted at the two sites located furthest downstream, SS-17D and SS-19. In addition, marginal or poor instream habitat conditions were appraised at site SS-19.

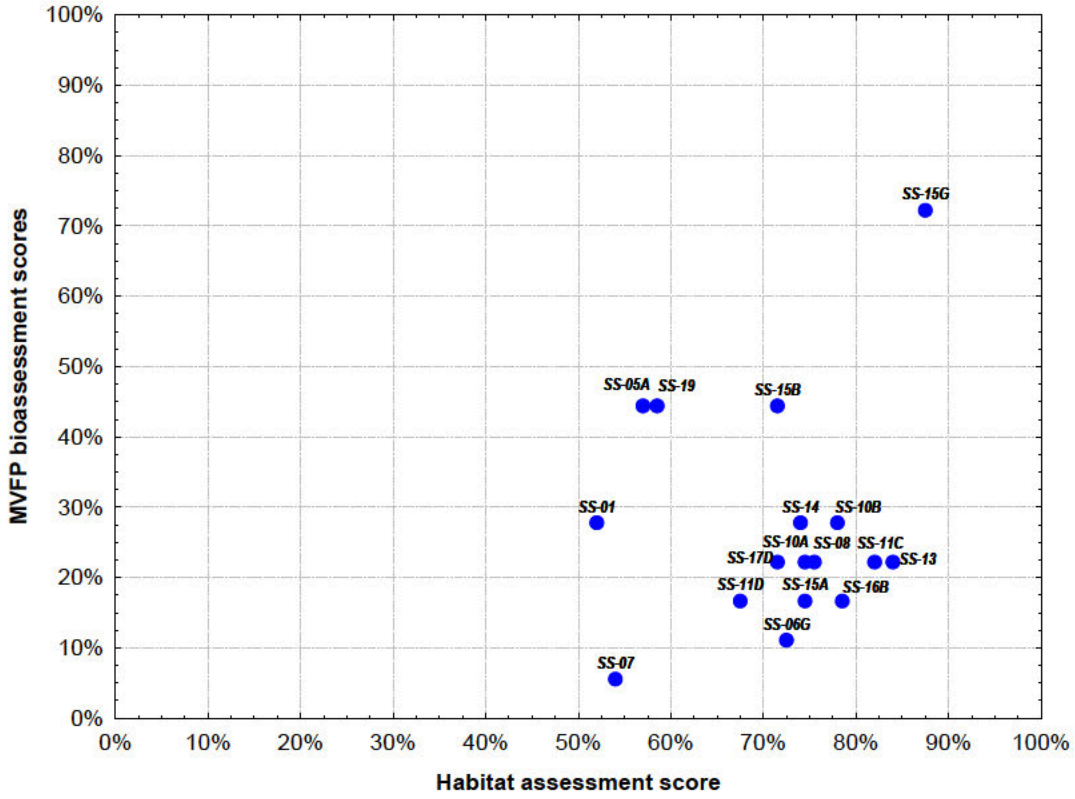

Figure 5-38. Montana Valley and Foothill Prairies (MVFP) bioassessment scores plotted against habitat assessment scores for Silver Bow Creek watershed sites, September 8-9, 2015. Both assessments are expressed as percent of maximum possible score.

Table 5-7. Results of subjective visual habitat assessments. Silver Bow Creek watershed, September 8-9, 2015.

Site ID	Site Location	Habitat Parameter										Total Score
		Epifaunal substrate/available cover	Embeddedness	Velocity/depth regime	Sediment deposition	Channel flow status	Channel alteration	Frequency of riffles (or bends)	Bank stability (left/right)	Vegetative protection (left/right)	Riparian vegetative zone width (left/right)	
SS-01	Blacktail Creek at Father Sheehan Park	8	12	14	4	13	11	10	5/6	8/4	5/4	104
SS-05A	Silver Bow Creek above Butte Reduction Works	8	12	12	8	18	13	8	5/7	6/8	4/5	114
SS-06G	Silver Bow Creek above Butte WWTP	18	12	16	10	18	15	14	8/7	6/8	8/5	145
SS-07	Silver Bow Creek below Butte WWTP	10	11	9	10	16	11	5	7/7	6/7	3/6	108
SS-08	Silver Bow Creek at Rocker	15	13	16	11	16	17	14	9/9	7/8	8/6	149
SS-10A	Silver Bow Creek above Sand Creek	10	16	13	16	17	17	10	9/9	8/9	8/9	151
SS-10B	Silver Bow Creek below Sand Creek	16	16	14	15	17	17	12	9/9	8/8	7/8	156
SS-11C	Silver Bow Creek above Browns Gulch	16	17	14	18	18	15	13	9/9	9/9	8/9	164
SS-11D	Silver Bow Creek below Browns Gulch	10	11	10	16	18	15	9	7/9	7/7	8/8	135
SS-13	Silver Bow Creek in Reach L	17	16	17	18	18	18	15	9/9	9/8	7/7	168
SS-14	Silver Bow Creek at Miles Crossing	13	13	7	18	18	15	8	9/6	9/8	7/6	148
SS-15A	Silver Bow Creek above German Gulch	14	11	10	16	17	18	19	9/9	7/7	6/6	149
SS-15B	Silver Bow Creek below German Gulch	13	16	18	16	17	13	16	9/6	9/2	6/2	143
SS-15G	German Gulch near confluence	18	19	15	19	18	18	19	9/8	8/9	7/8	175
SS-16B	Silver Bow Creek in Reach P near Fairmont	15	15	17	11	18	12	17	9/9	9/9	8/8	157
SS-17D	Silver Bow Creek below Stewart St Opportunity	11	15	13	11	16	11	16	9/9	6/6	5/5	143
SS-19	Silver Bow Creek at Frontage Road	9	13	14	5	17	13	10	9/9	6/6	3/3	117

5.4 CONCLUSIONS

Based on the evidence apparent in aquatic invertebrate assemblages, biological integrity was impaired at all sites in this study in 2015. Moderate or severe impairment was generally indicated; however, the fauna at one site (SS-15G) indicated only slight impairment [Table 5-5; Table 5-6; Figure 5-1]. Table 5-8 summarizes the probable stressors judged to be influential, based on the taxonomic composition and attributes (function, tolerance, physiology, habitus, etc.) of organisms identified at each site.

Based on the performance of the Metals Tolerance Index (MTI) and the taxonomic composition of the aquatic invertebrate fauna, the influence of metals contamination was a possible stressor at six sites. There was indication of metals impact at the most upstream site in the study (SS-01), at sites above and below the Butte water treatment plant (SS-06G, SS-07), and at the three sites beginning above Brown's Gulch through Reach L (SS-11C, SS-11D, SS-13).

Aquatic invertebrate assemblages generally suggested that at least a portion of the impaired biological integrity indicated at all sites was the result of nutrient enrichment. From the upstream-most reach (SS-01) through Miles Crossing (SS-14) water quality appeared impaired by nutrient enrichment. In addition, hypoxia was indicated at four sites in this stretch of stream (below the Butte water treatment plant, SS-07; above Sand Creek, SS-10A; above Brown's Gulch, SS-11C; at Mile's crossing, SS-14). There was some indication of nutrient enrichment above and below German Gulch (sites SS-15A and SS-15B); however, not all invertebrate indicators suggested nutrient enrichment at these locations. In addition, nutrient enrichment was not indicated in German Gulch (SS-15G). Nutrient enrichment was again indicated at the three sites at, and below Reach P (sites SS-16P, SS-17D and SS-19). In this stretch of stream, hemoglobin-bearing taxa, suggesting hypoxic conditions, were more abundant than expected at both SS-17D and SS-19.

Evidence for the influence of sediment deposition could be detected in aquatic invertebrate assemblages collected at most sites in this study. Indeed, the Fine Sediment Biotic Index (FSBI) indicated sediment-tolerant assemblages at all sites. However, other characteristics of the assemblages (e.g., caddisfly richness) suggested that sites SS-14, SS-15B, SS-15G and SS-19 supported invertebrate assemblages that were more sensitive to deposited sediment than indicated by the FSBI. The other characteristics of the invertebrate assemblages at sites SS-05A, SS-16B, and SS-17D were more equivocal.

Investigation of the invertebrate assemblages suggested that the habitat was disrupted at most sites. Only in German Gulch (SS-15G) did the fauna not indicate habitat disruption. When visual assessment of habitat parameters are scored similarly to bioassessment based on aquatic invertebrates, the relationships between scores may be useful in distinguishing the relative effects of habitat disturbances and water quality perturbations on aquatic invertebrate assemblages. Figure 5-38 is a graph of bioassessment scores plotted against habitat assessment scores for the sites in this study. The tight cluster of sites in the lower right quadrant of the graph, where habitat scores are much higher than associated bioassessment scores, strongly suggests that water quality limits invertebrate assemblages at these sites.

Table 5-8. Predicted stressors at each site, based on the taxonomic composition and attributes of biological assemblages.[22]

Site ID	Site Location	Habitat Parameter				
		Nutrients	Metals	Sediments	Hypoxia	Habitat Disruption
SS-01	Blacktail Creek at Father Sheehan Park	m	m	m		m
SS-05A	Silver Bow Creek above Butte Reduction Works	m		?m		m
SS-06G	Silver Bow Creek above Butte WWTP	m	m	m		m
SS-07	Silver Bow Creek below Butte WWTP	m	m	m	m	m
SS-08	Silver Bow Creek at Rocker	m		m		m
SS-10A	Silver Bow Creek above Sand Creek	m		m	m	m
SS-10B	Silver Bow Creek below Sand Creek	m		m		m
SS-11C	Silver Bow Creek above Browns Gulch	m	m	?m	m	m
SS-11D	Silver Bow Creek below Browns Gulch	m	m	m		m
SS-13	Silver Bow Creek in Reach L	m	m	m		m
SS-14	Silver Bow Creek at Miles Crossing	m			m	m
SS-15A	Silver Bow Creek above German Gulch	?m		m		m
SS-15B	Silver Bow Creek below German Gulch	?m				m
SS-15G	German Gulch near confluence					
SS-16B	Silver Bow Creek in Reach P near Fairmont	m		?m		m
SS-17D	Silver Bow Creek below Stewart St Opportunity	m		m	m	m
SS-19	Silver Bow Creek at Frontage Road	m			m	m

[22] Scores: m = macroinvertebrate sample indicates stress, ?m = macroinvertebrate sample inconclusive, p = periphyton sample indicates stress, ?p = periphyton sample inconclusive.

6.0 PERIPHYTON

6.1 INTRODUCTION

This chapter describes results of periphyton (benthic algae) monitoring within the Streamside Tailings Operable Unit (SSTOU) of the Silver Bow Creek/Butte Area National Priorities List site in 2015. A total of seventeen sites were sampled, including fifteen sites on the Silver Bow Creek, one site on German Gulch and one site on Blacktail Creek. Periphyton monitoring is one element of the Montana Department of Environmental Quality program for evaluating the influence of remediation on the ecology of Silver Bow Creek.

Periphyton samples were analyzed for non-diatom (soft-bodied) algae, and diatom algae taxonomy and community structure. A suite of analytical metrics was applied to the diatom data to assess the degree of impairment from metals, nutrients, and sediment. These metrics included a stressor-specific tool developed for the Middle Rockies Ecoregion [Teply, 2010] and adopted by MDEQ as a periphyton standard operating procedure for determining the probability of sediment impairment [MDEQ, 2011]. In addition, a variety of diatom metrics developed for Montana mountain streams were used [Bahls, 1993; Teply and Bahls, 2005] which are based on autecological preferences or requirements of freshwater diatoms [Lowe, 1974; Van Dam et al., 1994; Bahls, 2006].

Potential water quality or habitat stressors at each site, indicated by the taxonomic and functional composition of the algal flora, are described in a series of site-specific narratives.

6.2 METHODS

6.2.1 Sampling

In September 2015, the periphyton community was sampled at fifteen sites on Silver Bow Creek, one site on German Gulch, and one site on Blacktail Creek [Table 6-1]. Project staff collected periphyton samples on September 8-9, 2015. One composite periphyton sample was collected from multiple substrates and habitat types at each monitoring site. Periphyton samples were collected following the MDEQ PERI-1 method for flowing streams where a defined reach has not been established [MDEQ, 2012c]. Periphyton samples were preserved in the field with Lugol's IKI solution and were transported to the laboratory on ice.

Table 6-1. Periphyton sampling locations in the Streamside Tailings Operable Unit, 2015.

Site ID	Site Location	Location (GPS coordinates, NAD 83)	
		Latitude	Longitude
SS-01	Blacktail Creek at Father Sheehan Park	45.98532	-112.50772
SS-05A	Silver Bow Creek above Butte Reduction Works	45.99653	-112.54343
SS-06G	Silver Bow Creek above WWTP	45.99648	-112.56316
SS-07[23]	Silver Bow Creek below WWTP	45.99679	-112.56470
SS-08	Silver Bow Creek at Rocker	46.00167	-112.60490
SS-10A	Silver Bow Creek above Sand Creek	46.00375	-112.66084
SS-10B	Silver Bow Creek below Sand Creek	46.00429	-112.66160
SS-11C	Silver Bow Creek above Browns Gulch	46.00336	-112.70172
SS-11D	Silver Bow Creek below Browns Gulch	46.00342	-112.70304
SS-13	Silver Bow Creek in Reach L	46.00647	-112.71394
SS-14	Silver Bow Creek at Miles Crossing	46.01142	-112.72270
SS-15A	Silver Bow Creek above German Gulch	46.02170	-112.78969
SS-15G	German Gulch near confluence	46.02170	-112.79029
SS-15B	Silver Bow Creek below German Gulch	46.02263	-112.79175
SS-16	Silver Bow Creek in Reach P near Fairmont	46.05494	-112.79611
SS-17D [24]	Silver Bow Creek below Stewart Street at Opportunity	46.10787	-112.80553
SS-19	Silver Bow Creek at Frontage Road	46.12247	-112.80032

6.2.2 Laboratory Analysis

6.2.2.1 Non-Diatom Algae

To prepare samples for analysis of soft-bodied algae, raw periphyton samples were vigorously shaken in the original sample container to homogenize the sample. The contents were then emptied into a porcelain evaporating dish. A small, random subsample of the liquid fraction containing suspended algal material (approximately 3-5 drops) was dispensed onto a welled glass microscope slide using a disposable plastic dropper. Visible (i.e., macroscopic) soft-bodied algae were teased apart and subsampled in proportion to their estimated importance relative to the total volume of algal material in the sample, and this material was added to the liquid fraction on the slide. The assembled subsample was then covered with a 22x30 mm cover slip,

[23] Co-located with USGS streamflow gauge 12323250.

[24] Co-located with USGS streamflow gauge 12323600.

and the completed wet mount was analyzed for soft-bodied algae using an Olympus BHT compound microscope as described below.

The cover slip was scanned at 100X following a set pattern in the approximate shape of an hourglass (upper and lower horizontal transects linked by diagonal transects); magnification was increased to 200X or 400X as necessary to resolve detail in smaller specimens. All soft-bodied algae were identified to genus. The relative abundance of each soft-bodied algal genus (and of all diatom genera collectively) was estimated for comparative purposes, according to the following system:

- rare (r): represented by a single occurrence in the subsample;
- occasional (o): represented by multiple occurrences, but infrequently observed;
- common (c): represented by multiple occurrences, regularly observed;
- frequent (f): present in nearly every field of view;
- abundant (a): multiple occurrences in every field of view;
- dominant (d): multiple occurrences in every field of view in abundances beyond practical limits of enumeration.

Soft-bodied genera (and the diatom component) were also ranked numerically according to their estimated contribution to the total algal biovolume present in each sample.

6.2.2.2 Diatom Algae

To prepare samples for diatom analysis, organic matter was oxidized and permanent fixed mounts of cleaned diatom material were prepared. Each raw periphyton sample was vigorously shaken in the original sample container to thoroughly homogenize the material, and a subsample of approximately 20 mL was poured into a 250 mL Pyrex beaker. Each beaker was treated with 30-50 mL of concentrated sulfuric acid (H_2SO_4), and a small quantity of 5% hydrogen peroxide (H_2O_2) and granulated potassium dichromate ($K_2Cr_2O_7$) was added to each beaker. Samples were then covered with a Pyrex watch glass and gently heated to near-boiling for 1-2 hours to completely oxidize all organic matter in the sample. Samples were allowed to cool, and then were topped off with deionized water. The diatom material was allowed to settle for at least eight hours, and the clear supernatant decanted; this process was repeated at least five times to thoroughly flush all traces of oxidants from the diatom material.

Subsample volumes were adjusted to ensure manageable densities of diatom cells in suspension, and a small amount of each sample was dispersed onto clean 22-mm square glass cover slips. The cover slips were air dried, heated to 150 F, and affixed onto standard glass microscope slides with Naphrax mounting medium to create a permanent mount of diatom cells (frustules). To ensure a high quality mount for diatom identification and to make replicates available for archiving, at least two slide mounts were made from each sample; one of the replicates was selected from each sample batch for analysis. An Olympus BHT compound microscope with a SPlan oil immersion objective (1000X total magnification) was used for diatom identifications and counts. A proportional count of 800 diatom valves (400 frustules) was performed along a vertical transect line across the exact center of the fixed cover slip. The starting point on the top edge was determined with the aid of the microscope's stage micrometer

and recorded, and all diatoms observed within a one-field-of-view width were identified and counted. Diatoms were identified to the lowest practical taxonomic level, generally to species-level, although diatoms were identified to subspecies-level when possible.

6.2.3 Data Analysis

6.2.3.1 Non-Diatom Algae Taxonomy

All non-diatom algal data from each site in 2015 is available in Appendix H. The estimated relative abundance and estimated biovolume rank of each non-diatom algal division were tabulated by site and summarized with stacked histograms to compare results between sites.

6.2.3.2 Diatom Algae Taxonomy

All diatom count data from each site in 2015 is available in Appendix G. The percent relative abundance (PRA) values were based on the proportional count of 800 diatom valves (400 frustules) as described in Section 6.2.2.2. I

6.2.3.3 Diatom Bioassessment Indices

6.2.3.3.1 Increaser Taxa

Diatom taxa counts were evaluated to determine the probability of impairment from sediment, nutrients, and metals. Sediment impairment was evaluated by using a list of sediment tolerant diatoms recognized for cold water streams in the Middle Rockies Ecoregion [Teply, 2010]. Sediment increaser taxa identified by Teply [2010] are species with autecological preferences for sediment impaired conditions. To calculate a sediment impairment score at each site, the relative abundance proportion of all identified sediment increaser taxa was combined. If the relative abundance of all combined sediment increaser taxa exceeded 15.34% the site was considered "sediment impaired". In addition, the relative abundance proportion was transformed following recommendations of Teply [2010] to an impairment probability score. Similarly, Teply and Bahls [2005] proposed lists of diatom taxa that would increase in relative abundance in response to impairment from metals or nutrients in Montana mountain streams. Although these bioindices are informative, the nutrient and metals increaser taxa bioindices of Teply and Bahls [2005] were not adopted as standard operating procedures (SOPs) by MDEQ because the likelihood for meeting performance criteria may be low, and because these bioindices may have limited ability to differentiate between specific causes of impairment. The relative abundance proportions and impairment probabilities of the sediment, nutrient, and metals increaser taxa are summarized with histograms.

6.2.3.3.2 Association Metrics

In addition to the increaser taxa bioindices, we have selected seven diatom association metrics to provide additional assessments of environmental quality at these sites [Table 6-2] as well as an evaluation of overall biointegrity at each site. Results of these metrics from each site

were tabulated and sites with impaired conditions have been highlighted. The following paragraphs describe each metric.

Species richness is a common measure of environmental impairment with greater diversity reflecting more heterogeneous environmental conditions whereas low diversity reflects environmental homogeneity potentially due to impairment from a specific stressor such as metal contamination. Bahls [1979] utilized species richness as a measure of diatom biointegrity.

The diversity index [Bahls, 1993] is based on the Shannon diversity index which includes measures of species evenness and species richness and is sensitive to variation in water quality [Bahls, 1993].

The pollution index [Bahls, 1993] synthesizes the three pollution tolerance groups defined by Lange-Bertalot [1979] with diatom autecological profiles described by Lowe [1974] and unpublished Montana diatom data described in Bahls [2006]. Diatom species are assigned on an ordinal scale from 1-3 with a score of 1 corresponding to "most-tolerant", 2 corresponding to "less-tolerant", and 3 corresponding to "sensitive" for tolerance to nutrient enrichment, mineral salts, elevated temperatures, or metal toxicity.

A large number of diatom taxa are motile (i.e., capable of locomotion). The siltation index [Bahls, 1993] is calculated as the total percent abundance of motile diatom taxa which include species belonging to the genera *Navicula, Nitzschia, Surirella* and other closely related taxa. Motility may be an adaptation to siltation, as a mechanism that allows individual diatom cells to avoid inundation by deposited sediment.

The disturbance index [Barbour et al., 1999] considers the percent relative abundance of the diatom *Achnanthidium minutissimum*, which is highly specialized in the post-disturbance recolonization of stream substrates. Elevated numbers may be indicative of recent environmental stress caused by elevated or highly variable stream flows, water velocities, and water temperatures at a site.

In addition to the metrics described [Table 6-2], an overall biointegrity rating was assigned for each SSTOU monitoring site. This rating essentially provides a summary of the seven metrics from Table 6-2 and is determined in a series of steps. First, at each site, scores were assigned for each diatom association metric [Table 6-2] on an ordinal scale: "excellent" = 3, "good" = 2, "fair" = 1, and "poor" = 0. Second, the mean score of those seven metrics at each site was calculated. The mean score of the seven metrics was then used as the overall biointegrity rating on another ordinal scale: "excellent" >2.7, "good" = 1.7-2.7, "fair" = 0.7-1.7, and "poor" <0.7.

Table 6-2. Diatom association metrics to evaluate biological integrity in mountain streams: references range of values, expected response to increasing impairment or natural stress, and criteria for rating levels of biological integrity.

Metric	Biological Integrity				Range	Expected Response	Reference
	Excellent	Good	Fair	Poor			
	Impairment or Stress						
	None	Minor	Moderate	Severe			
	Use Support						
	Full	Full	Partial	None			
Species Richness[25]	>29	20-29	19-10	<10	0-100+	decrease[26]	Bahls, 1979
Diversity Index[27]	>2.99	2.00-2.99	1.00-1.99	<1.00	0-5+	decrease[28]	Bahls, 1993
Pollution Index[29]	>2.50	2.01-2.50	1.50-2.00	<1.5	1-3	decrease	Bahls, 1993
Siltation Index[30]	<20.0	20.0-39.9	40.0-59.9	>59.9	0-90+	increase	Bahls, 1993
Disturbance Index[31]	<25.0	25.0-49.9	50.0-74.9	>74.9	0-100	increase	Barbour et al., 1999
Dominant Species (%)[32]	<25.0	25.0-49.9	50.0-74.9	>74.9	~5-100	increase	Barbour et al., 1999
Abnormal Valves (%)[33]	0	>0.0, <3.0	3.0-9.9	>9.9	0-30+	increase	McFarland et al., 1997

6.2.3.3.3 Additional Association Metrics

Van Dam et al. [1994] developed specific metrics to evaluate the response of periphyton assemblages to nutrient enrichment. Three of these nutrient enrichment metrics have been applied to the diatom count data from the SSTOU and these results are summarized in histograms. First, the degree to which the diatom assemblage had been structured by variation in trophic state from nutrient enrichment was determined by assessment of the percent relative abundance of diatom taxa which are tolerant of nutrient enriched conditions.

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[25] Based on a proportional count of 400 cells (800 valves).

[26] May increase somewhat in mountain streams in response to slight to moderate increases in nutrients or sediment

[27] Base 2 [bits].

[28] May increase somewhat in mountain streams in response to slight to moderate increases in nutrients or sediment

[29] Composite numeric expression of the pollution tolerances assigned by Lange-Bertalot [1979] to the common diatom species.

[30] Sum of the percent abundances of all species in the genera Navicula, Nitzschia and Surirella.

[31] Percent abundance of *Achnanthidium minutissimum* (synonym: *Achnanthes minutissima*).

[32] Percent abundance of the species with the largest number of valves in the proportional count.

[33] Valves with an irregular outline, with abnormal ornamentation, or both.

Second, the degree to which the diatom assemblage had been structured by metabolic nitrogen processes, which determines the degree of organic nitrogen tolerance for those organisms, was evaluated by the percent relative abundance of diatom taxa tolerant of enriched organic nitrogen conditions. Enrichment by organically-derived nitrogen compounds can influence the composition of the algal community. Diatoms exhibit a broad range of tolerance to organic nitrogen. Most diatoms are nitrogen autotrophs that are unable to directly utilize organic nitrogen, and for these organisms elevated nitrogen levels may be toxic. Some diatoms are metabolic specialists and are able to directly assimilate organic nitrogen in addition to, or as an alternative to, inorganic nitrogen (i.e., facultative nitrogen heterotrophs). The presence of nitrogen-heterotrophic diatom species does not necessarily indicate elevated organic nitrogen; however, a scarcity of nitrogen-autotrophic diatom species with a low tolerance to organic nitrogen, relative to more tolerant forms, may indicate the likelihood of organic nitrogen pollution.

Third the degree to which the diatom assemblage had been structured by hypoxic (low dissolved oxygen concentrations) conditions was determined by assessing the percent abundance of taxa intolerant to elevated biochemical oxygen demand (BOD) and hypoxia. Additionally, the relative abundance of diatoms requiring oligosaprobous to ß-mesosaprobous conditions was assessed. Oligosaprobous to ß-mesosaprobous conditions are low to moderately-low levels of organic matter decomposition, moderately-high to high dissolved oxygen concentrations, and predominantly inorganic forms of nitrogen.

6.2.3.4 Ecological Interpretations

Finally, at each site the diatom assemblage data are interpreted and potential water quality impairments are discussed. These narrative interpretations are based on the taxonomic composition, autecological preferences, and functional organization of non-diatom and diatom components of the periphyton assemblage at each monitoring site

Varying tolerance to inorganic and organic nutrients has been established among non-diatom and diatom algae; some taxa are sensitive to nutrient enrichment, and other taxa are indifferent to, or tolerant of nutrient enrichment [Prescott, 1962; Wehr and Sheath, 2003; Bahls, 2006].

Many soft-bodied algae are sensitive to dissolved metals, particularly copper. Filamentous green algae (Chlorophyta) generally are more sensitive to copper than are colonial (i.e., mat-forming) blue-green algae (Cyanobacteria). Colonial blue-green algae (e.g., *Nostoc* and *Rivularia*) can tolerate metals due to a protective gelatinous mucilage (i.e., slime coating). However, some green algae (e.g., *Cladophora, Mougeotia, Scenedesmus, Stigeoclonium* and *Ulothrix* sp.) have demonstrated high tolerances to dissolved metals [Shaw, 1990].

Diatom assemblages may also indicate metal contamination. Diatom species that increase in abundance in response to heavy metals pollution were identified by Teply and Bahls [2005] and Stoermer and Smol [1999]. Elevated metals can cause teratological growth forms (i.e., abnormalities in cell walls) in diatoms [Falasco et al., 2009].

6.3 RESULTS

6.3.1 Non-Diatom Algae Taxonomy

A total of 43 genera of non-diatom algae representing four algal divisions were identified from the seventeen SSTOU and tributary sites monitored in September 2015. From three to thirteen genera of non-diatom algae were present at individual sites in 2015 [Table 6-3]. The complete list of non-diatom algae genera identified at each site in 2015 are presented in Appendix H.

At site SS-01 three genera of non-diatom algae were identified in September 2015 [Table 6-3; Figure 6-1] which was the lowest diversity of non-diatom genera of all sites in 2015. All three non-diatom taxa at site SS-01 were green algae (division Chlorophyta) which together contributed about the same biovolume as the Bacillariophyta diatom algae assemblage [Figure 6-2]. The filamentous green algae *Cladophora* and *Oedogonium* were the most important (by biovolume rank) non-diatom taxa at this headwater tributary to Silver Bow Creek.

Seven genera of non-diatom algae representing four algal divisions were present at site SS-05A [Table 6-3; Figure 6-1]. Four genera of green algae contributed about equal biovolume as the diatoms at site SS-05A [Figure 6-2]. Each of the three other algal divisions (blue-green, red, and yellow-green algae) at SS-05A were represented by a single genus and contributed a relatively small amount to the estimated total algal biovolume [Figure 6-3]. The filamentous green algae *Cladophora* and *Oedogonium* were the most important (by biovolume rank) non-diatom taxa at SS-05A.

Seven genera of non-diatom algae representing two algal divisions were present at site SS-06G [Table 6-3; Figure 6-1]. Four genera of green algae contributed about the same biovolume as the diatoms at site SS-06G, and three genera of blue-green algae accounted for approximately half the biovolume [Figure 6-2]. As at the upstream sites, the filamentous green algae *Cladophora* and *Oedogonium* were the most important (by biovolume rank) non-diatom taxa at SS-06G.

Twelve genera of non-diatom algae representing four algal divisions were present at site SS-07 [Table 6-3; Figure 6-1]. Eight genera of green algae contributed the greatest estimated biovolume at site SS-07, with roughly four times the biovolume of either the diatoms or the combined blue-green, red and yellow-green algae [Figure 6-2]. The filamentous green algae *Cladophora, Oedogonium* and *Stigeoclonium* and the filamentous yellow-green algae *Vaucheria* and *Tribonema* accounted for most of the non-diatom biovolume at SS-07.

Ten genera of non-diatom algae representing four algal divisions were present at site SS-08 [Table 6-3; Figure 6-1]. Seven genera of green algae dominated the estimated biovolume, accounting for roughly four times the biovolume of either the diatoms or the combined blue-green, red and yellow-green algae [Figure 6-2]. The filamentous alga *Stigeoclonium* strongly dominated the green algae at site SS-08, while *Oedogonium* and *Cladophora* were less important (by biovolume rank) than at the upstream Silver Bow Creek sites. The irregularly-branched colonial green algae *Protococcus* and *Entocladia* also became more important (by biovolume rank) at SS-08, while the filamentous yellow-green alga *Vaucheria* and the red alga *Audouinella* contributed significantly to the total non-diatom biovolume at SS-08.

Eleven genera of non-diatom algae representing three algal divisions were present at site SS-10A and ten non-diatom genera representing two algal divisions were identified at site SS-10B [Table 6-3; Figure 6-1]. Seven and eight genera of green algae were present at sites SS-10A and SS-10B, respectively [Table 6-3; Figure 6-1]. The dominant non-diatom algae were similar at both sites, with the filamentous green algae *Cladophora, Oedogonium* and *Stigeoclonium,* the green alga *Entocladia*, and the blue-green alga *Phormidium* included within the top six or seven non-diatom taxa. Diatoms were relatively more important (by biovolume rank) at SS-10B compared to SS-10A [Figure 6-2], and the red alga *Audouinella* was present only at SS-10A.

Eleven genera of non-diatom algae representing two algal divisions were present at site SS-11C and eight genera representing two non-diatom algal divisions were identified at site SS-11D [Table 6-3; Figure 6-1]. Seven genera of green algae and four genera of blue-green algae were present at SS-11C and six genera of green algae and two genera of blue-green algae were present at SS-11D [Table 6-3; Figure 6-1]. The dominant non-diatom algae were similar at both sites, with the filamentous green algae *Cladophora, Stigeoclonium* and *Oedogonium* the top three taxa by estimated abundance after the diatoms. Green algae contributed most of the algal biovolume at both sitesle and diatoms were relatively more important (by biovolume rank) than the blue-green algae [Figure 6-2].

Nine genera of non-diatom algae representing two algal divisions were present at site SS-13 [Table 6-3; Figure 6-1]. Eight of the genera were green alga, including the filamentous forms *Cladophora, Oedogonium* and *Stigeoclonium,* the irregularly-branched form *Entocladia,* and the multi-celled *Scenedesmus*. Together the green algae contributed the greatest amount of estimated biovolume at site SS-13 [Figure 6-2].

Three genera of non-diatom algae representing two algal divisions were identified at site SS-14 [Table 6-3; Figure 6-1] which was considerably lower than all other sites upstream except SS-01. The filamentous green algae *Cladophora* and *Oedogonium,* and the unicellular blue-green *Dactylococcopsis* together contributed less biovolume at SS-14 than the diatom assemblage [Figure 6-2].

Eleven genera of non-diatom algae representing two algal divisions were present at site SS-15A and thirteen genera representing two non-diatom algal divisions were identified at site SS-15B [Table 6-3; Figure 6-1]. Green algae were important at both sites and blue-green algae were represented by about half as many genera. Seven and eight genera of green algae, and four and five genera of blue-green alga, respectively, were present at sites SS-15A and SS-15B in 2015 [Table 6-3; Figure 6-1]. The filamentous green algae *Cladophora* and *Oedogonium* and the irregularly-branched green alga *Entocladia* were the most numerous non-diatom taxa at both sites. The blue-green algae *Chamaesiphon* and *Heteroleibleinia,* both epiphytic forms associated with filamentous green algae, were relatively important (by biovolume rank) at both sites, while the filamentous blue-green *Phormidium* was more numerous at site SS-15A. Green algae together contributed the greatest amount of biovolume at both Silver Bow Creek sites SS-15A and SS-15B, respectively. Diatoms were relatively important (by biovolume rank) and greater in biovolume than the blue-green algae at both sites [Figure 6-2].

Seven genera of non-diatom algae were identified at site SS-15G [Table 6-3; Figure 6-1]. Three algal divisions were represented at site SS-15G including three genera of green algae,

three genera of blue-green algae, and one genus of red algae [Table 6-3; Figure 6-1]. The blue-green genus *Nostoc* was the most numerous alga at site SS-15G while the filamentous red alga *Audouinella* and blue-green *Phormidium*, were more numerous than the filamentous green alga *Cladophora*. The blue-green algae together contributed the greatest amount of estimated biovolume at site SS-15G, while the diatoms, green algae and red algae each contributed similar, but much lesser amounts of biovolume at site SS-15G [Figure 6-2].

Seven genera of non-diatom algae representing two algal divisions were present at site SS-16 [Table 6-3; Figure 6-1]. Three genera of green algae including *Entocladia, Scenedesmus* and *Stigeoclonium,* and four genera of blue-green algae including *Leptolyngbya, Xenococcus, Phormidium* and *Dactylococcopsis,* were identified at site SS-16. Notably absent were the filamentous green algae *Cladophora* and *Oedogonium*, which had been important taxa at all thirteen sites upstream from site SS-16B. Blue-green algae contributed the greatest estimated biovolume at SS-16B and diatoms were less important (by biovolume rank) in than non-diatom algae at site SS-16B compared to all upstream sites in 2015 [Figure 6-2].

Nine genera of non-diatom algae representing two algal divisions were present at site SS-17D including six genera of green algae and three genera of blue-green [Table 6-3; Figure 6-1]. The green algae *Entocladia, Cladophora, Scenedesmus* and *Stigeoclonium* were most numerous, ranking in the top five including diatoms at site SS-17D. The blue-green alga *Leptolyngbya* was relatively abundant, and the estimated biovolume of the blue-green algae at site SS-17D was similar to the diatoms, but overall estimated biovolume at site SS-17D was strongly dominated by the green algae [Figure 6-2].

Fourteen genera of non-diatom algae representing two algal divisions were present in 2015 at site SS-19 including nine genera of green algae and five genera of blue-green algae [Table 6-3; Figure 6-1]. The green algae *Stigeoclonium, Entocladia, Cladophora* and *Oedogonium* were most numerous and accounted for the greatest estimated biovolume at SS-19, while the blue-green algae *Phormidium* and *Chamaesiphon* were relatively less-important in number and biovolume [Figure 6-2]. Diatoms contributed much less to the total estimated biovolume at site SS-19 than the green algae, but were similar to the blue-green algae [Figure 6-2].

Table 6-3. Number of non-diatom algae genera, by algal division, present at Streamside Tailings Operable Unit monitoring sites, 2015.

Site ID	Site Location	Algal Division				
		Chlorophyta (Green Algae)	Cyanobacteria[34] (Blue-green Algae)	Rhodophyta (Red Algae)	Xanthophyta (Yellow-green Algae)	Total Genera
SS-01	Blacktail Creek at Father Sheehan Park	3	0	0	0	3
SS-05A	Silver Bow Creek above Butte Reduction Works	4	1	1	1	7
SS-06G	Silver Bow Creek above WWTP	4	3	0	0	7
SS-07	Silver Bow Creek below WWTP	8	1	1	2	12
SS-08	Silver Bow Creek at Rocker	7	1	1	1	10
SS-10A	Silver Bow Creek above Sand Creek	7	3	1	0	11
SS-10B	Silver Bow Creek below Sand Creek	8	2	0	0	10
SS-11C	Silver Bow Creek above Browns Gulch	7	4	0	0	11
SS-11D	Silver Bow Creek below Browns Gulch	6	2	0	0	8
SS-13	Silver Bow Creek in Reach L	8	1	0	0	9
SS-14	Silver Bow Creek at Miles Crossing	2	1	0	0	3
SS-15A	Silver Bow Creek above German Gulch	7	4	0	0	11
SS-15G	German Gulch near confluence	3	3	1	0	7
SS-15B	Silver Bow Creek below German Gulch	8	5	0	0	13
SS-16	Silver Bow Creek in Reach P near Fairmont	3	4	0	0	7
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	6	3	0	0	9
SS-19	Silver Bow Creek at Frontage Road	9	5	0	0	14

[34] Formerly classified as Cyanophyta.

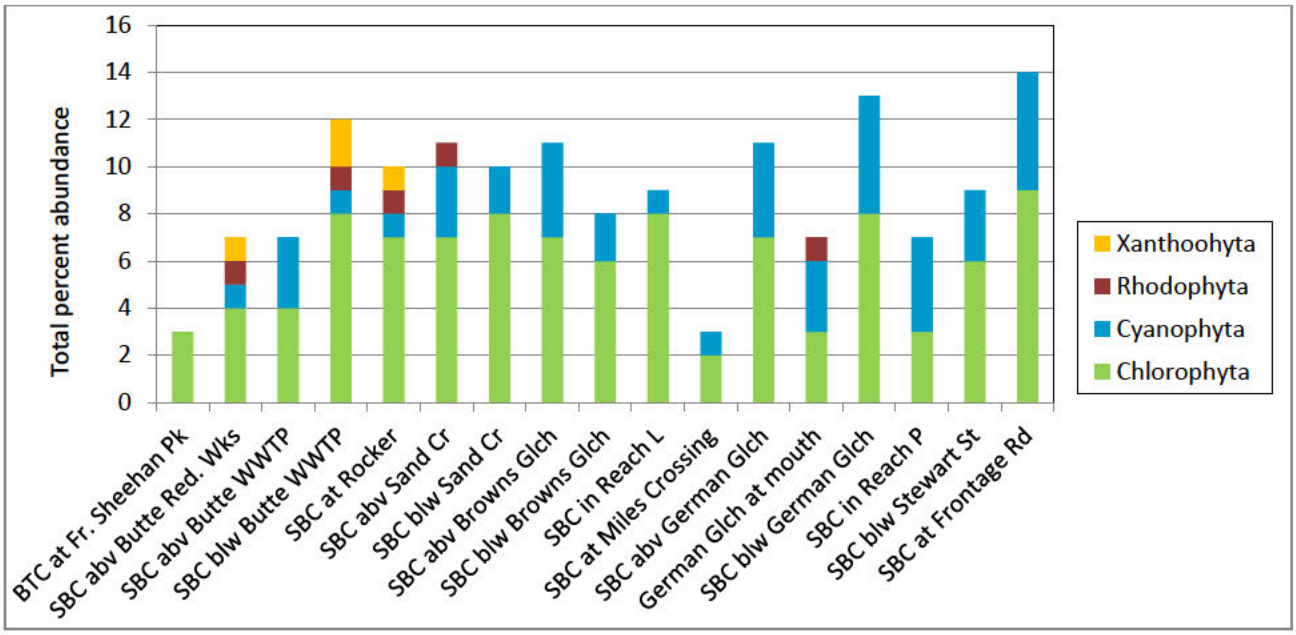

Figure 6-1. Number of non-diatom algae genera, by algal division, at Streamside Tailings Operable Unit sites in 2015.

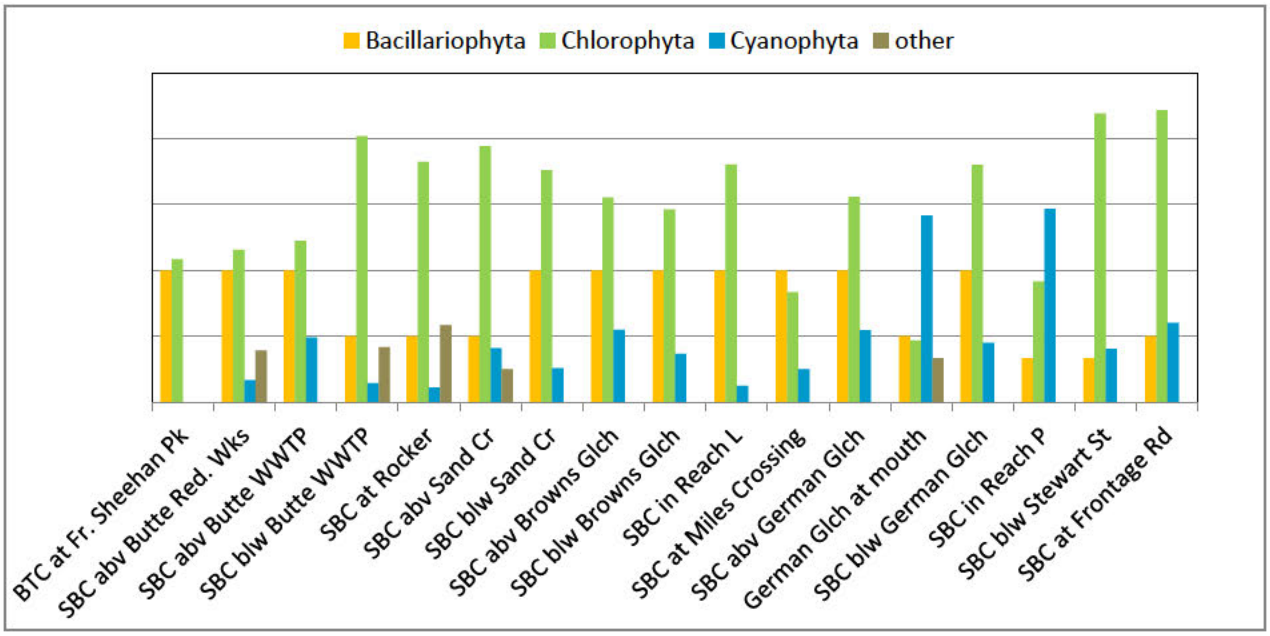

Figure 6-2. Relative importance (by biovolume rank) of non-diatom algal divisions and diatoms, based on estimated biovolume rank, at Streamside Tailings Operable Unit sites in 2015.

6.3.2 Diatom Taxonomy

A total of 122 species of diatom algae, including varieties and subspecies, were identified in periphyton samples collected at the seventeen SSTOU sites monitored in September 2015.

At site SS-01, 61 species of diatom algae were identified and Shannon diversity was 3.00 [Figure 6-3; Figure 6-4]. Dominant taxa included *Staurosira construens var. binodis , S. construens var. pumila, S. construens var. venter, Melosira varians* and *Nitzschia inconspicua*.

At site SS-05A, 59 species of diatom algae were identified and Shannon diversity was 3.05 [Figure 6-3; Figure 6-4]. Dominant diatom taxa included *Nitzschia dissipata, Staurosira construens var. binodis, S. construens var. pumila* and *S. construens var. venter*.

At site SS-06G, 57 species of diatom algae were identifiedand Shannon diversity was 3.11 [Figure 6-3; Figure 6-4]. Dominant diatom taxa included *Encyonema silesiacum, Rhoicosphenia abbreviata,* and three *Staurosira construens* varieties.

At site SS-07, 56 species of diatom algae were identified and Shannon diversity was 3.14 [Figure 6-3; Figure 6-4]. Dominant diatom taxa included *Eolimna minima, Mayamaea atomus* and three St*aurosira construens* varieties.

At site SS-08, 24 species of diatom algae were identified and Shannon diversity was 2.07 [Figure 6-3; Figure 6-3]. Dominant diatom taxa included *Eolimna minima, Navicula seminulum* and *Nitzschia amphibia*.

At site SS-10A, 37 species of diatom algae were identified and Shannon diversity was 2.81 [Figure 6-3; Figure 6-4]. Dominant diatom taxa included *Nitzschia amphibia, Nitzschia inconspicua* and *Rhoicosphenia abbreviata*.

At site SS-10B, 32 species of diatom algae were identified and Shannon diversity was 2.35 [Figure 6-3; Figure 6-4]. Dominant diatom taxa included *Eolimna minima, Nitzschia amphibia* and *Nitzschia inconspicua*.

At site SS-11C, 32 species of diatom algae were identified and Shannon diversity was 2.40 [Figure 6-3; Figure 6-4]. Dominant diatom taxa included *Fragilaria vaucheriae* and *Nitzschia amphibia*.

At site SS-11D, 35 species of diatom algae were identifiedand Shannon diversity was 2.63 [Figure 6-3; Figure 6-4]. Dominant diatom taxa included *Fragilaria vaucheriae, Mayamaea atomus* and *Nitzschia amphibia*.

At site SS-13, 36 species of diatom algae were identified and Shannon diversity was 2.84 [Figure 6-3; Figure 6-4]. Dominant diatom taxa included *Fragilaria vaucheriae, Nitzschia amphibia* and *Ulnaria ulna*.

At site SS-14, 51 species of diatom algae were identified and Shannon diversity was 3.14 [Figure 6-3; Figure 6-4]. Dominant diatom taxa included *Eolimna minima, Fragilaria vaucheriae* and *Staurosira construens* varieties.

A site SS-15A, 33 species of diatom algae were identified and Shannon diversity was 2.74 [Figure 6-3; Figure 6-4]. Dominant diatom taxa included *Nitzschia amphibia* and *Nitzschia paleacea*.

At site SS-15G, 45 species of diatom algae were identified and Shannon diversity was 2.92 [Figure 6-3; Figure 6-4]. Dominant diatom taxa included *Achnanthidium minutissimum, Cocconeis placentula* and *Nitzschia archibaldii*.

At site SS-15B, 36 species of diatom algae were identified and Shannon diversity was 2.60 [Figure 6-3; Figure 6-4]. Dominant diatom taxa included *Halamphora veneta, Mayamaea atomus, Nitzschia amphibia* and *Nitzschia paleacea*.

At site SS-16, 36 species of diatom algae were identified and Shannon diversity was 2.60 [Figure 6-3; Figure 6-4]. Dominant diatom taxa included *Mayamaea atomus, Nitzschia fonticola* and *Nitzschia paleacea*.

At site SS-17D, 28 species of diatom algae were identified and Shannon diversity was 2.10 [Figure 6-3; Figure 6-4]. Dominant diatom taxa included *Halamphora veneta, Mayamaea atomus, Nitzschia fonticola* and *Nitzschia paleacea*.

At site SS-19, 34 species of diatom algae were identified and Shannon diversity was 2.22 [Figure 6-3; Figure 6-4]. Dominant diatom taxa included *Halamphora veneta, Mayamaea atomus, Nitzschia fonticola* and *Nitzschia paleacea*.

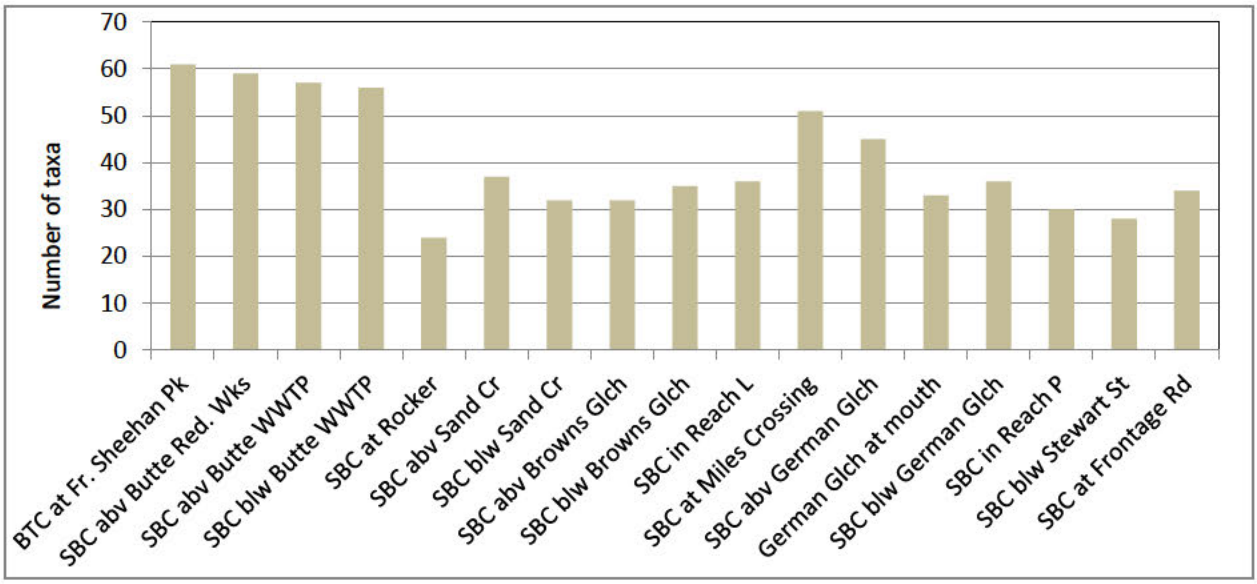

Figure 6-3. Diatom species richness at Streamside Tailings Operable Unit sites, 2015.

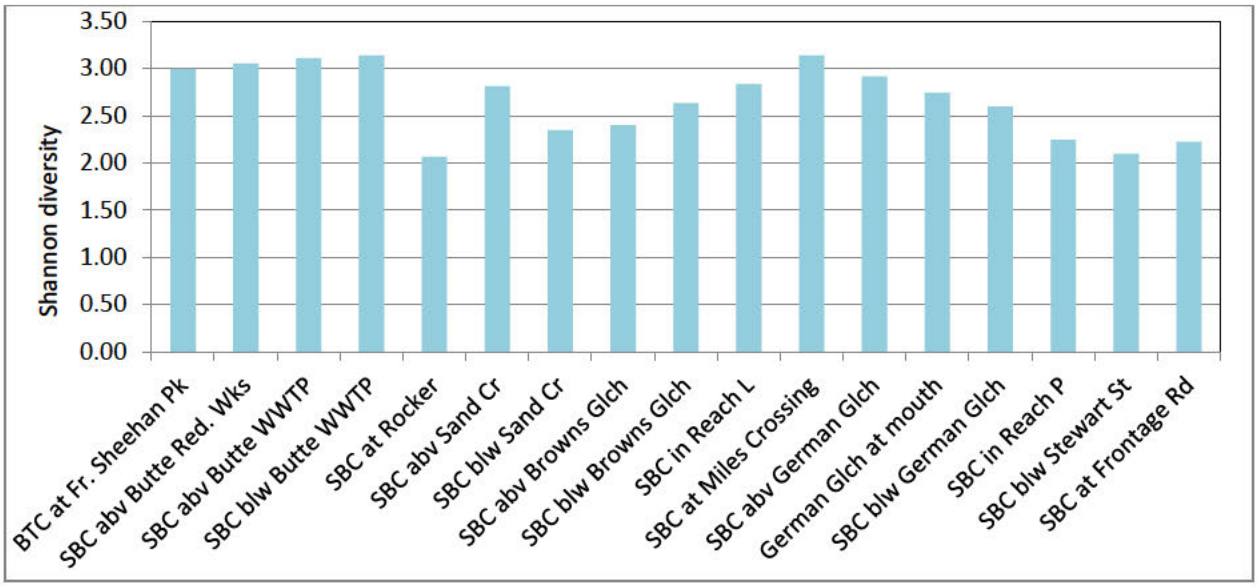

Figure 6-4. Shannon diversity values for diatom assemblages at Streamside Tailings Operable Unit sites, 2015.

6.3.3 Diatom Bioassessment Indices

6.3.3.1 Increaser Taxa

6.3.3.1.1 Sediment

Sediment increaser diatom taxa increased steadily from site SS-05A (Silver Bow Creek above the Butte Reduction Works) downstream to site SS-08 (Silver Bow Creek at Rocker) [Figure 6-5]. The second highest sediment increaser diatom taxa value for any of the SSTOU sites monitored in 2015 occurred at SS-08 (Silver Bow Creek at Rocker) and the associated probability of impairment was >95% Figure 6-5]. Sediment increaser diatom taxa decreased steadily in abundance downstream from site SS-08 (Silver Bow Creek at Rocker) to site SS-11C (Silver Bow Creek above Browns Gulch) where sediment increaser diatom taxa were about 5% in relative abundance and the probability of impairment by sediment was about 20% [Figure 6-5]. Sediment increaser diatom taxa increased in abundance in a downstream direction to site SS-15A (Silver Bow Creek above German Gulch) where the probability of impairment >95% [Figure 6-5]. Sediment increaser diatom taxa at site SS-15G (German Gulch at mouth) was less than 10% in relative abundance and the probability of impairment by sediment was about 30% [Figure 6-5]. Sediment increaser taxa at the three SSTOU stations downstream of German Gulch did not exceed 5% in relative abundance and the probability of impairment by sediment was <25% [Figure 6-5].

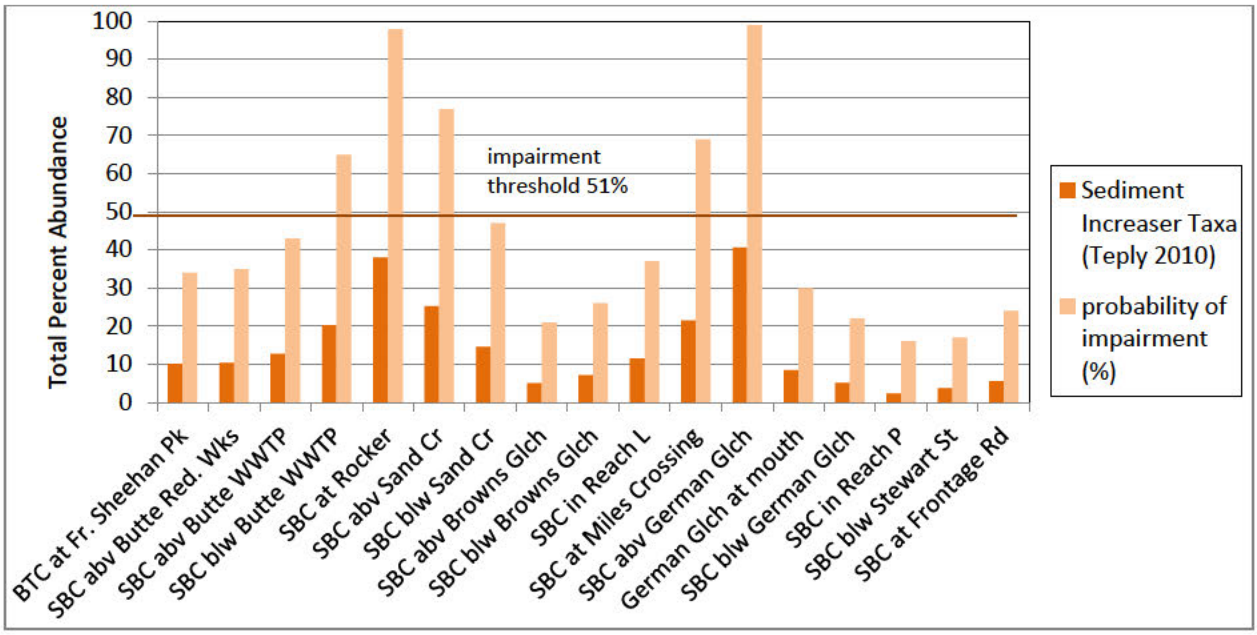

Figure 6-5. Total percent abundance for diatom sediment increaser taxa and probability of impairment according to sediment increaser taxa bioassessment index [Teply, 2010] at Streamside Tailings Operable Unit sites in 2015.

6.3.3.1.2 Metals

Metals increaser diatom taxa at site SS-01 (Blacktail Creek at Father Sheehan Park) had a relative abundance of about 45% and a probability of impairment by metals of about 90% [Figure 6-6]. At the next four SSTOU sites downstream from site SS-01, metals increaser taxa increased in relative abundance to between 55% and 65% and the probability of impairment by metals was >95% [Figure 6-6]. Downstream of site SS-08 (Silver Bow Creek at Rocker) metals increaser diatom taxa decreased steadily from about 35% at site SS-10A (Silver Bow Creek above Sand Creek) to about 20% at site SS-11C (Silver Bow Creek above Browns Gulch); probability of impairment by metals decreased from nearly 70% at site SS-10A to about 30% at site SS-11C [Figure 6-6]. Metals increaser taxa increased slightly at the next four SSTOU sites downstream from site SS-11D (Silver Bow Creek below Browns Gulch) to site SS-15A(Silver Bow Creek upstream of German Gulch) but never exceeded 30% in relative abundance or a 50% probability of impairment by metals [Figure 6-6]. Metals increaser diatom taxa and probability of impairment by metals were the lowest at site SS-15G (German Gulch at mouth) at <10% for relative abundance of metals increaser diatom taxa and probability of impairment [Figure 6-6]. Metals increaser taxa increased significantly at site SS-15B (Silver Bow Creek below German Gulch) to over 40% relative abundance and 80% probability of impairment [Figure 6-6]. Relative abundance of metals increaser taxa decreased slightly at site SS-16 (Silver Bow Creek in Reach P) with an approximately 65% probability of impairments [Figure 6-6]. Relative abundance of metals increaser taxa increased to about 57% at site SS-17D (Silver Bow Creek below Stewart Street at Opportunity) with >95% probability of impairment by metals and remained nearly as high at site SS-19 (Silver Bow Creek at Frontage Road) [Figure 6-6].

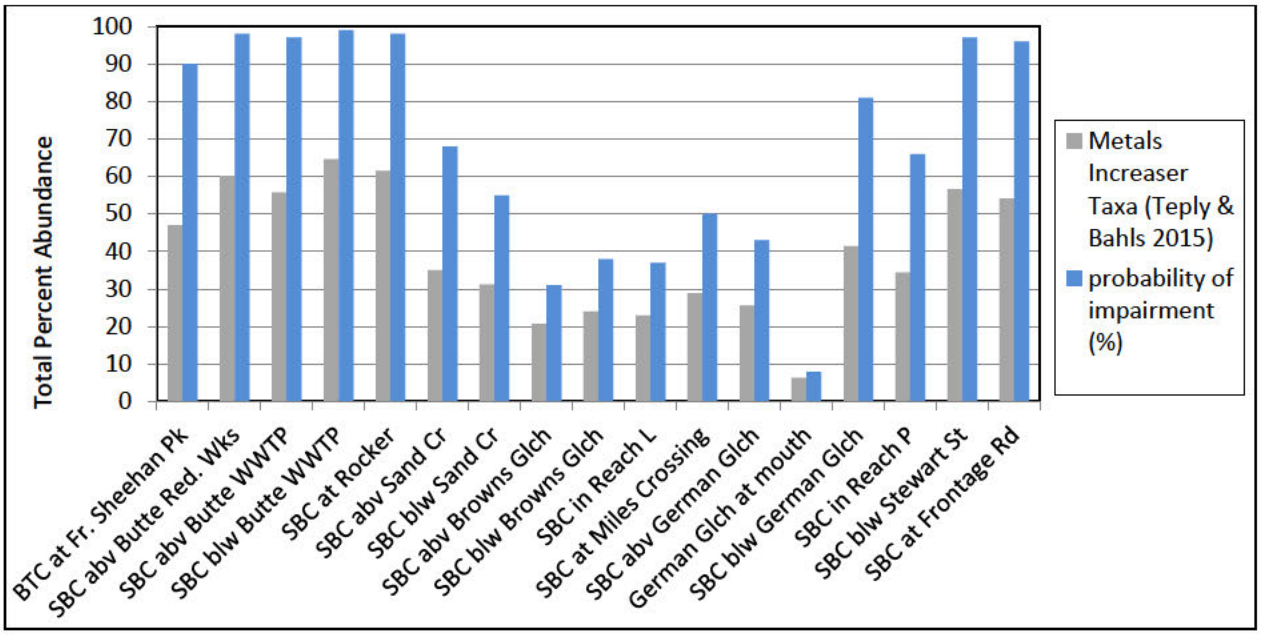

Figure 6-6. Total percent abundance for diatom metals increaser taxa and probability of impairment according to metals increaser taxa bioassessment index [Teply and Bahls, 2005] at Streamside Tailings Operable Unit sites in 2015.

6.3.3.1.3 Nutrients

Relative abundance of nutrient increaser diatom taxa at site SS-01 (Blacktail Creek at Father Sheehan Park) and site SS-05A (Silver Bow Creek above the Butte Reduction Works) was <10% with a probability of impairment by nutrients of about 11% and 12%, respectively [Figure 6-7]. At site SS-06G (Silver Bow Creek above Butte WWTP) and site SS-07 (Silver Bow Creek below Butte WWTP), relative abundance of nutrient increaser diatom taxa were approximately 15% with a probability of impairment of about 25% at both sites [Figure 6-7]. Relative abundance of nutrient increaser taxa at site SS-08 (Silver Bow Creek at Rocker) decreased to about 5%with a probability of impairment of <10% [Figure 6-7]. At site SS-10A (Silver Bow Creek above Sand Creek), relative abundance of nutrient increaser taxa increased to about 22% with a probability of impairment of nearly 40% which was the highest relative abundance and impairment probability observed in the upper reaches of Silver Bow Creek in 2015 [Figure 6-7]. At the next five sites, from site SS-10B (Silver Bow Creek below Sand Creek) downstream to site SS-14 (Silver Bow Creek at Miles Crossing) the relative abundance of nutrient increaser diatom taxa ranged from 7-13%, with associated impairment probabilities ranging from 10-17% [Figure 6-7]. Relative abundance of nutrient increaser taxa increased to about 20% at sites SS-15A (Silver Bow Creek above German Gulch) and SS-15B (Silver Bow Creek below German Gulch) with impairment probabilities of about 35% at both sites [Figure 6-7]. At site SS-15G (German Gulch at mouth) the relative abundance of nutrient increaser tax was about 38% with a probability of impairment of nearly 75% [Figure 6-7]. At site SS-16 (Silver Bow Creek in Reach P), the relative abundance of nutrient increaser taxa was about 40% with a probability of impairment of about 80%, which was the highest in the SSTOU in 2015 [Figure 6-7]. At site SS-17D (Silver Bow Creek below Stewart Street at Opportunity) the

relative abundance of nutrient increaser taxa decreased to 20% and decreased further to 14% at site SS-19 (Silver Bow Creek at Frontage Road) to 14% [Figure 6-7]. Nutrient impairment probabilities at SS-17D and SS-19 were 30% and 20%, respectively [Figure 6-7].

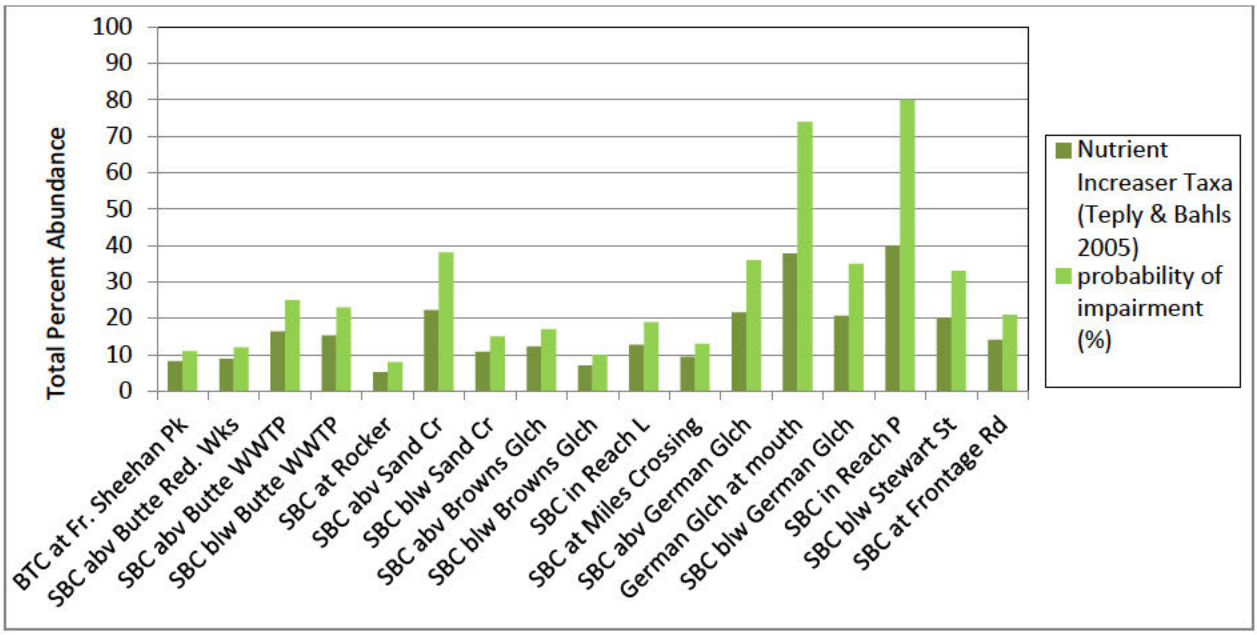

Figure 6-7. Total percent abundance for diatom nutrient increaser taxa and probability of impairment according to nutrient increaser taxa bioassessment index [Teply and Bahls, 2005] at Streamside Tailings Operable Unit sites in 2015.

6.3.3.2 Association Metrics

Overall biological integrity in the SSTOU and monitored tributaries was rated "good" at thirteen sites and "fair" at four sites [Table 6-4]. No site monitored in 2015 received a rating of "excellent" or "poor" for biological integrity.

At site SS-01 (Blacktail Creek at Father Sheehan Park) the "good" rating for biological integrity was due to a slightly depressed pollution index and a slightly elevated siltation index and abnormal cells percentage [Table 6-4]. All other diatom association metrics for site SS-01 indicated "excellent" biological integrity.

At site SS-05A (Silver Bow Creek above Butte Reduction Works) the "good" rating for biological integrity was due to a slightly elevated siltation index and dominant taxon percentage and a moderately high proportion of abnormal cells [Table 6-4]. The remaining diatom association metrics for site SS-05A indicated "excellent" biological integrity.

At site SS-06G (Silver Bow Creek above Butte WWTP) the "good" rating for biological integrity was due to the elevated abnormal cells percentage [Table 6-4]. Although this metric indicated severe impairment, all of the six remaining diatom association metrics for site SS-05A indicated "excellent" biological integrity.

At site SS-07 (Silver Bow Creek below Butte WWTP) the "good" rating for biological integrity was due to a moderately high abnormal cells percentage, a slightly depressed pollution index,

and a slightly elevated siltation index [Table 6-4]. All other diatom association metrics for site SS-07 indicated "excellent" biological integrity.

At site SS-08 (Silver Bow Creek at Rocker) the "fair" rating for biological integrity was due to a deeply depressed pollution index and highly elevated siltation index [Table 6-4]. Two metrics indicated severe impairment at SS-08 and five metrics for site SS-08 indicated minor impairment [Table 6-4].

At site SS-10A (Silver Bow Creek above Sand Creek) the "good" rating for biological integrity was due to a moderately elevated siltation index, slightly depressed Shannon diversity score and pollution index, and a slightly elevated abnormal cells percentage[Table 6-4].

At site SS-10B (Silver Bow Creek below Sand Creek) the "good" rating for biological integrity was due to a highly elevatedsiltation index, a moderately depressed pollution index, a slightly depressed Shannon diversity score, and a slightly elevated dominant taxon percentage [Table 6-4]. The composite rating at site SS-10B was only slightly above the "good" biological integrity rating.

At site SS-11C (Silver Bow Creek above Browns Gulch) the "good" rating for biological integrity was due to a highly elevated siltation index, a moderately high abnormal cells percentage, slightly depressed Shannon diversity score and pollution index, and a slightly elevated dominant taxon percentage. The composite rating at site SS-11C was only slightly above the cutoff for a biological integrity rating of "good".

At site SS-11D (Silver Bow Creek below Browns Gulch) the "good" rating for biological integrity was due to a highly elevated value for siltation index, a moderately depressed pollution index, a slightly depressed Shannon diversity score, and slightly elevated dominant taxon and abnormal cells percentages [Table 6-4]. Two metrics at site SS-11D indicated "excellent", three indicated "good", and two indicated "fair" biological integrity [Table 6-4].

At site SS-13 (Silver Bow Creek in Reach L) the "good" rating for biological integrity was due to moderately elevated siltation index and an abnormal cells percentage, and a slightly depressed Shannon diversity score and pollution index [Table 6-4]. The three remaining metrics for site SS-13 indicated "excellent" biological integrity.

At site SS-14 (Silver Bow Creek at Miles Crossing) the "good" rating for biological integrity was due to a moderately elevated abnormal cells percentage, a slightly depressed pollution index, and a slightly elevated siltation index [Table 6-4].

At site SS-15A (Silver Bow Creek above German Gulch) the "good" rating for biological integrity was due to moderately depressed pollution index, moderately elevated siltation index and abnormal cells percentage, a slightly depressed Shannon diversity score, and a slightly elevated dominant taxon percentage [Table 6-4]. The composite rating at site SS-15A was slightly above the "good" rating.

At site SS-15G (German Gulch at mouth) the "good" rating for biological integrity was due to a moderately elevated abnormal cells percentage, slightly depressed Shannon diversity score and pollution index, and slightly elevated siltation index and dominant taxon percentage [Table 6-4].

At site SS-15B (Silver Bow Creek below German Gulch) the "good" rating for biological integrity was due to a moderately depressed pollution index, moderately elevated siltation index

and abnormal cells percentage, a slightly depressed Shannon diversity score, and a slightly elevated dominant taxon percentage [Table 6-4]. The composite rating at site SS-15B was slightly above the cutoff for a biological integrity rating of "good".

The "fair" ratings for biological integrity at sites SS-16 (Silver Bow Creek in Reach P near Fairmont), SS-17D (Silver Bow Creek below Stewart Street at Opportunity), and SS-19 (Silver Bow Creek at Frontage Road) were due to highly elevated siltation indices, moderately to highly elevated abnormal cells percentages, moderately depressed pollution indices, slightly depressed Shannon diversity scores and slightly elevated dominant taxon percentages [Table 6-4].

Table 6-4. Diatom association metrics and biological integrity impairment ratings for Streamside Tailings Operable Unit monitoring sites, 2015.

Site ID	Site Location	Diatom Species Richness	Shannon Diversity Index	Pollution Index	Siltation Index	Disturbance Index	Dominant Taxon (%)	Abnormal Cells (%)	Biological Integrity[2]
SS-01	Blacktail Creek at Father Sheehan Park	61	3.00	2.40	22.63	0.25	22.13	1.38	good
SS-05A	Silver Bow Creek above Butte Reduction Works	59	3.05	2.66	20.38	0.00	26.50	7.50	good
SS-06G	Silver Bow Creek above WWTP	57	3.11	2.66	13.88	0.88	21.25	12.00	good
SS-07	Silver Bow Creek below WWTP	56	3.14	2.17	35.00	0.00	18.38	3.13	good
SS-08	Silver Bow Creek at Rocker	24	2.07	1.41	86.38	0.00	32.25	1.75	fair
SS-10A	Silver Bow Creek above Sand Creek	37	2.81	2.17	45.75	0.00	17.50	2.38	good
SS-10B	Silver Bow Creek below Sand Creek	32	2.35	1.98	71.00	0.00	29.50	0.38	good
SS-11C	Silver Bow Creek above Browns Gulch	32	2.40	2.02	61.75	0.00	37.88	3.00	good
SS-11D	Silver Bow Creek below Browns Gulch	35	2.63	1.94	59.25	0.00	28.88	1.50	good
SS-13	Silver Bow Creek in Reach L	36	2.84	2.11	41.63	0.00	18.50	3.88	good
SS-14	Silver Bow Creek at Miles Crossing	51	3.14	2.23	27.88	0.00	10.75	6.75	good
SS-15A	Silver Bow Creek above German Gulch	33	2.74	1.99	55.5	0.00	29.00	6.50	good
SS-15G	German Gulch near confluence	45	2.92	2.50	37.25	7.38	25.88	3.00	good
SS-15B	Silver Bow Creek below German Gulch	36	2.60	1.72	64.88	0.00	23.88	5.00	good
SS-16	Silver Bow Creek in Reach P near Fairmont	30	2.25	1.62	82.75	0.00	34.13	10.50	fair
SS-17D	Silver Bow Creek below Stewart Street at Opportunity	28	2.10	1.99	76.00	0.25	32.38	13.38	fair
SS-19	Silver Bow Creek at Frontage Road	34	2.22	1.69	73.75	0.00	33.13	8.25	fair

Metric score suggests minor impairment.

Metric score suggests moderate impairment.

Metric score suggests severe impairment.

6.3.3.3 Additional Association Metrics

Diatom taxa intolerant to inorganic nutrients had low abundance relative to tolerant taxa at virtually all SSTOU and monitored tributary sites in 2015 [Figure 6-8]. The relative abundance of taxa intolerant to elevated inorganic nutrients ranged from 0% (SS-08; Silver Bow Creek at Rocker) to 3.25% (SS-15G; German Gulch at mouth). No Silver Bow Creek site exceeded 1.4% relative abundance of nutrient intolerant taxa in 2015 [Figure 6-8].

Nitrogen-autotrophic diatoms were dominant at the four sites upstream of Rocker. Those sites also had the lowest percentage of nitrogen-heterotrophic diatoms of all Silver Bow Creek sites (with the exception of the German Gulch site; SS-15G) [Figure 6-9]. At site SS-08 (Silver Bow Creek at Rocker) nitrogen-heterotrophic taxa were dominant and nitrogen-autotrophic taxa were absent [Figure 6-9]. From site SS-10A (Silver Bow Creek above Sand Creek) to SS-11D (Silver Bow Creek below Browns Gulch), nitrogen-autotrophic diatoms were present but in relatively low relative abundances. Nitrogen-heterotroph taxa were dominant with >50% relative abundance from site SS-10A to SS-11D [Figure 6-9]. At sites SS-13 (Silver Bow Creek in Reach L) and SS-14 (Silver Bow Creek at Miles Crossing) nitrogen-autotrophic taxa were present at levels similar to sites SS-01 to SS-07 and nitrogen-autotrophs [Figure 6-9]. Downstream from SS-14, nitrogen-heterotroph taxa increased to relative abundances that exceeded nitrogen-autotroph diatoms at four of the five Silver Bow Creek sites [Figure 6-9]. Site SS-17D (Silver Bow Creek at Stewart Street) had relatively high nitrogen-autotroph relative abundance compared to the nitrogen-heterotroph relative abundance [Figure 6-9]. .

The relative abundance of diatoms requiring oligosaprobous to ß-mesosaprobous conditions at ranged from about 48-71% at the four sites upstream of SS-08 (Silver Bow Creek at Rocker) [Figure 6-10]. At site SS-08, the percentage of diatoms requiring oligosaprobous to ß-mesosaprobous conditions was <5% [Figure 6 10]. At the remaining Silver Bow Creek sites downstream from SS-08, the relative abundance of diatoms requiring oligosaprobous to ß-mesosaprobous conditions ranged from about 13% (SS-11D; Silver Bow Creek below Browns Gulch) to about 38% (SS-17D; Silver Bow Creek below Stewart Street at Opportunity) [Figure 6-10]. At site SS-15G (German Gulch at mouth) the relative abundance of diatoms requiring oligosaprobous to ß-mesosaprobous conditions exceeded 60% [Figure 6-10].

The relative abundance trend for diatoms requiring dissolved oxygen saturation >75% at closely resembled the pattern for relative abundance of diatoms requiring oligosaprobous to ß-mesosaprobous conditions, particularly at Silver Bow Creek sites upstream from German Gulch [Figure 6-10]. Downstream from German Gulch, the relative abundance of taxa requiring oxygen saturation >75% was substantially higher than the relative abundance of taxa requiring oligosaprobous to ß-mesosaprobous conditions [Figure 6-10]. In German Gulch, the relative abundance of taxa requiring oligosaprobous to ß-mesosaprobous conditions was about twice as high as the relative abundance of taxa requiring oxygen saturation >75% [Figure 6-10].

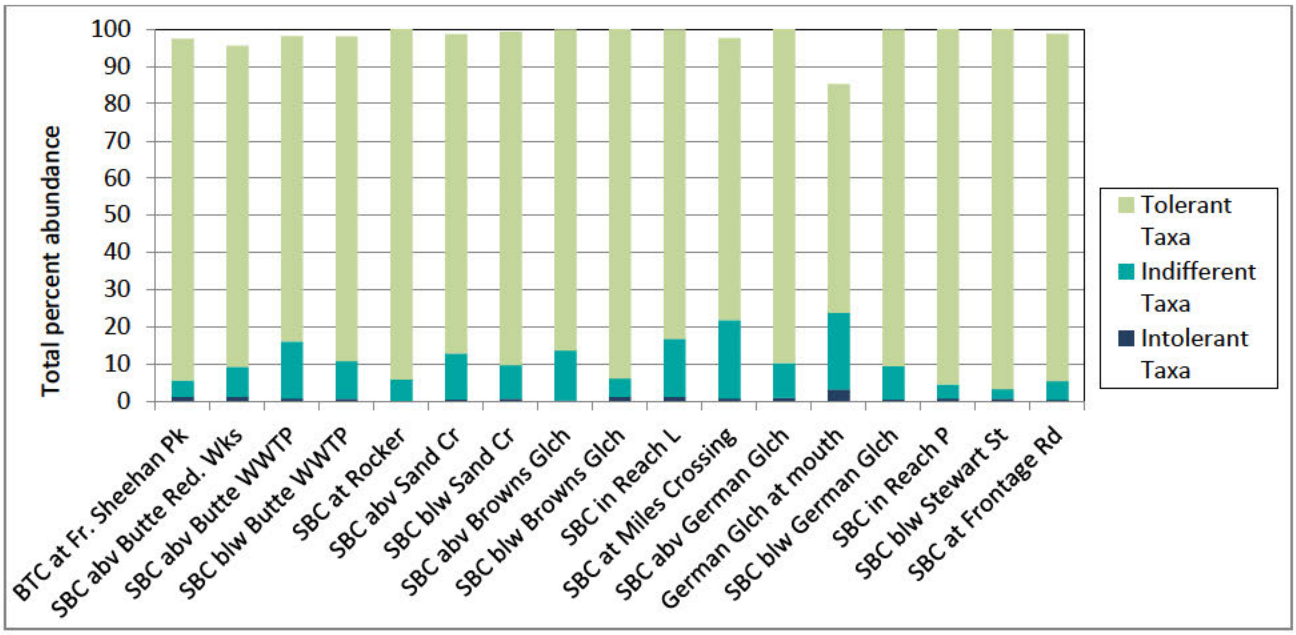

Figure 6-8. Variation in diatom trophic state tolerance among Streamside Tailings Operable Unit monitoring sites, 2015; percent abundance of taxa tolerant to elevated inorganic nutrients (after Van Dam et al., 1994).

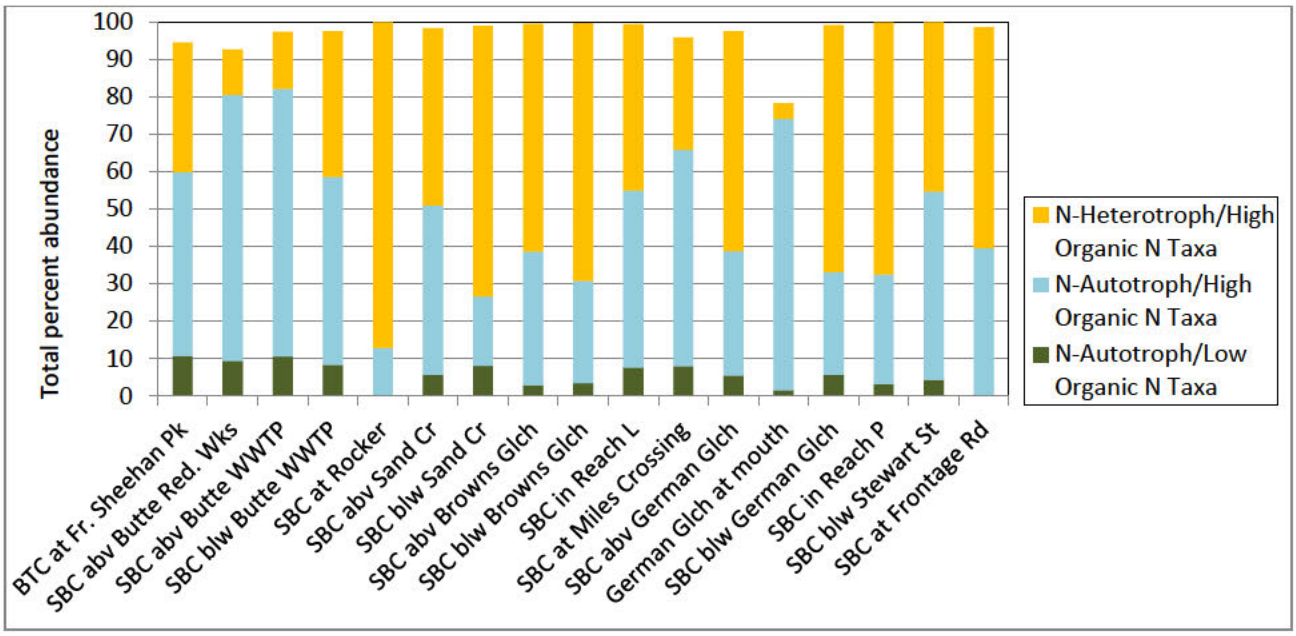

Figure 6-9. Variation in diatom nitrogen metabolism among Streamside Tailings Operable Unit monitoring sites, 2015; percent abundance of taxa tolerant of organic nitrogen (after Van Dam et al., 1994).

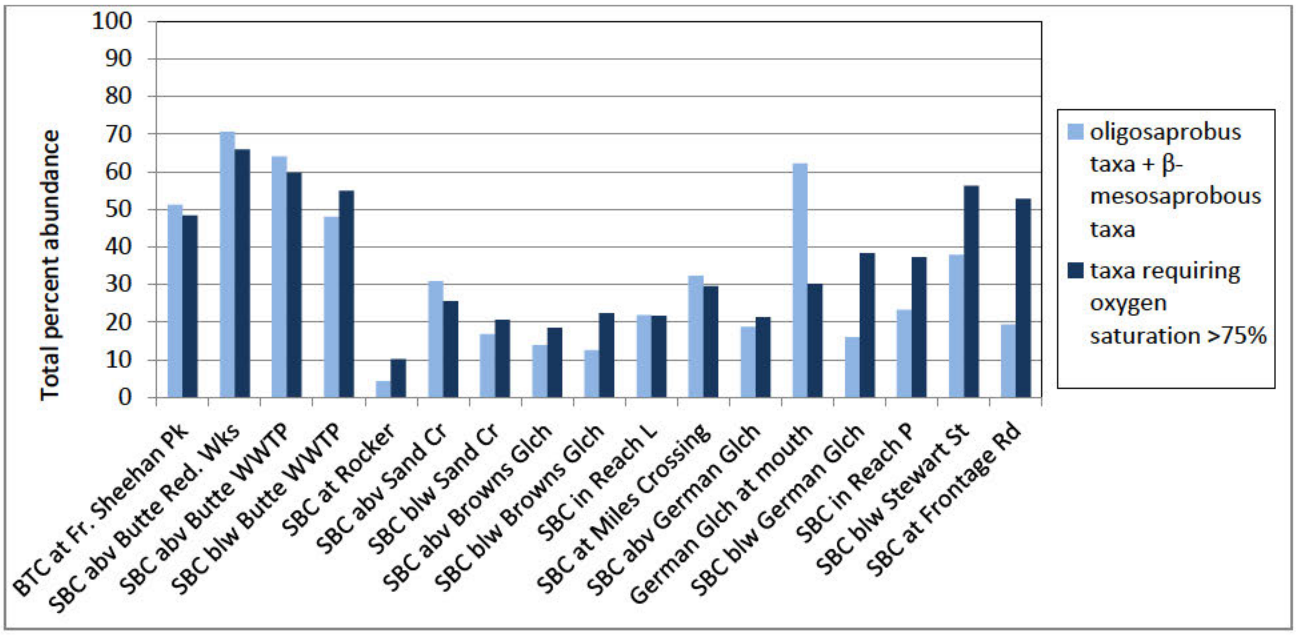

Figure 6-10. Variation in diatom oxygen demand among Streamside Tailings Operable Unit monitoring sites, 2015; percent abundance of taxa intolerant to elevated biochemical oxygen demand (BOD) and hypoxia (after Van Dam et al., 1994).

6.4 DISCUSSION

6.4.1 Ecological Interpretations of Periphyton Assemblages (Site Specific Summaries)

6.4.1.1 Blacktail Creek at Father Sheehan Park (SS-01)

The simple assemblage of non-diatom (soft-bodied) algae at site SS-01 suggested nutrient-poor conditions or impaired water quality. The moderately diverse assemblage of diatom species indicated water of relatively high quality with moderate inorganic nutrient concentrations, moderately high dissolved oxygen concentrations, and relatively low organic nitrogen concentrations and biochemical oxygen demand. Relatively low tolerances to deposited sediment and inorganic nutrients, and moderately high tolerance to heavy metals were exhibited by the diatom assemblage. Overall, biological integrity at site SS-01 in 2015 was rated "good" with minor impairment of the aquatic biota due to sediment and heavy metals.

6.4.1.2 Silver Bow Creek above Butte Reduction Works (SS-05A)

The diverse assemblage of non-diatom and diatom algae at site SS-05A indicated water of high quality, with moderate concentrations of inorganic nutrients, high dissolved oxygen concentrations, and low organic nitrogen and biochemical oxygen demand. Relatively low tolerances to deposited sediment and inorganic nutrients, and moderately high tolerance to heavy metals were exhibited by the diatom assemblage. Overall biological integrity at site SS-

05A in 2015 was rated “good” with minor impairment of the aquatic biota due to sediment and heavy metals.

6.4.1.3 Silver Bow Creek above Butte WWTP (SS-06G)

The moderately diverse assemblage of non-diatom and diatom algae at site SS-06G indicated water of high quality, with moderate concentrations of inorganic nutrients, high dissolved oxygen concentrations, and low organic nitrogen and biochemical oxygen demand. Low tolerances to deposited sediment, moderately low tolerance to inorganic nutrients, and moderately high tolerance to heavy metals were exhibited by the diatom assemblage. Overall biological integrity at site SS-05A in 2015 was rated “good” with minor impairment of the aquatic biota due to inorganic nutrients and heavy metals.

6.4.1.4 Silver Bow Creek below Butte WWTP (SS-07)

The diverse assemblage of non-diatom and diatom algae at site SS-07 indicated water of relatively high quality with moderate concentrations of inorganic nutrients, moderately high concentrations of dissolved oxygen and organic nitrogen, and a moderately low biochemical oxygen demand. Moderate tolerance to deposited sediment, moderately low tolerance to inorganic nutrients, and high tolerance to heavy metals were exhibited by the diatom assemblage. Overall biological integrity at site SS-07 in 2015 was rated “good” with minor impairment of the aquatic biota by inorganic nutrients and organic nitrogen and moderate impairment by heavy metals.

6.4.1.5 Silver Bow Creek at Rocker (SS-08)

The diverse assemblage of non-diatom algae at site SS-08 suggested water of relatively high quality, while the low diatom algae diversity indicating a moderate degree of water quality degradation. High tolerances to elevated concentrations of organic nitrogen, biochemical oxygen demand and low dissolved oxygen concentration, and high tolerance to elevated heavy metals and deposited sediment, were exhibited by the diatom assemblage. Overall biological integrity at site SS-08 in 2015 was rated “fair” with moderate impairment of the aquatic biota by inorganic nutrients, organic nitrogen, sediment and heavy metals.

6.4.1.6 Silver Bow Creek above Sand Creek (SS-10A)

The diverse assemblage of non-diatom algae at site SS-10A suggested water of relatively high quality, and the moderately low diatom algae diversity indicated some degree of water quality degradation. High tolerance to depressed dissolved oxygen and elevated concentrations of deposited sediment and organic nitrogen, and moderately high tolerance to elevated inorganic nutrients, heavy metals and biochemical oxygen demand were exhibited by the diatom assemblage. Overall biological integrity at site SS-10A in 2015 was rated “good” with minor to moderate impairment of the aquatic biota by inorganic nutrients, organic nitrogen, sediment and heavy metals.

6.4.1.7 Silver Bow Creek below Sand Creek (SS-10B)

The relatively diverse assemblage of non-diatom algae at site SS-10B suggested water of moderately high quality although depressed diatom species diversity indicated a moderate degree of water quality degradation. High tolerances to low dissolved oxygen concentrations and elevated concentrations of organic nitrogen and biochemical oxygen demand, and moderately high tolerances to elevated inorganic nutrients, heavy metals and deposited sediment were exhibited by the diatom assemblage. Overall biological integrity at site SS-10B was rated "good" in 2015 with minor to moderate impairment of the aquatic biota by inorganic nutrients, organic nitrogen and heavy metals.

6.4.1.8 Silver Bow Creek above Browns Gulch (SS-11C)

The moderately diverse group of non-diatom algae and the depressed diatom species diversity indicated minor to moderate water quality degradation site SS-11C. High tolerances to depressed dissolved oxygen and elevated concentrations of organic nitrogen and biochemical oxygen demand, but moderately low tolerances to elevated inorganic nutrients, heavy metals and deposited sediment were exhibited by the diatom assemblage. Overall biological integrity at site SS-11C was rated "good" in 2015 with minor to moderate impairment of the aquatic biota by inorganic nutrients, organic nitrogen, sediment and heavy metals.

6.4.1.9 Silver Bow Creek below Browns Gulch (SS-11D)

The relatively simple group of non-diatom algae and the depressed diatom species diversity indicated moderate water quality degradation site SS-11D. High tolerance to depressed dissolved oxygen and elevated concentrations of organic nitrogen and biochemical oxygen demand, but relatively low tolerances to elevated inorganic nutrients, heavy metals and deposited sediment were exhibited by the diatom assemblage. Overall biological integrity at site SS-11D was rated "good" in 2015 with minor to moderate impairment of the aquatic biota by inorganic nutrients, organic nitrogen and heavy metals.

6.4.1.10 Silver Bow Creek in Reach L (SS-13)

The relatively low diversity of non-diatom algae and the depressed diatom species diversity indicated moderate water quality degradation at site SS-13. High tolerances to depressed dissolved oxygen concentrations and elevated concentrations of organic nitrogen and biochemical oxygen demand, and moderate tolerances to elevated inorganic nutrients, heavy metals and deposited sediment were exhibited by the diatom assemblage. Overall biological integrity at site SS-11D was rated "good" in 2015 with minor to moderate impairment of the aquatic biota by inorganic nutrients, organic nitrogen, sediment and heavy metals.

6.4.1.11 Silver Bow Creek at Miles Crossing (SS-14)

The simple group of non-diatom (soft-bodied) algae at site SS-14 suggested a moderate degree of water quality degradation, while the diverse assemblage of diatom indicated water of relatively high quality. Moderately high tolerances to depressed dissolved oxygen and elevated concentrations of organic nitrogen and biochemical oxygen demand, moderately low tolerances to heavy metals and deposited sediment, and low tolerances to elevated inorganic nutrients were exhibited by the diatom assemblage. Overall biological integrity at site SS-14 was rated "good" in 2015 with minor impairment of the aquatic biota by inorganic nutrients, organic nitrogen, sediment and heavy metals.

6.4.1.12 Silver Bow Creek above German Gulch (SS-15A)

The moderately diverse group of non-diatom algae and the depressed diatom species diversity indicated minor to moderate water quality degradation at site SS-15A. High tolerances to elevated organic nitrogen and deposited sediment, and moderately high tolerance to depressed dissolved oxygen and elevated inorganic nutrients, biochemical oxygen demand and heavy metals were exhibited by the diatom assemblage. Overall biological integrity at site SS-15A was rated "good" in 2015 with minor to moderate impairment of the aquatic biota by inorganic nutrients, organic nitrogen, sediment and heavy metals.

6.4.1.13 Silver Bow Creek below German Gulch (SS-15B)

The moderately diverse group of non-diatom algae and the slightly depressed diatom species diversity indicated minor water quality degradation at site SS-15B. High tolerances to elevated concentrations of organic nitrogen, biochemical oxygen demand, heavy metals and inorganic nutrients were exhibited by the diatom assemblage. Overall biological integrity at site SS-15A was rated "good" in 2015 with minor to moderate impairment of the aquatic biota by organic nitrogen, heavy metals, inorganic nutrients and sediment.

6.4.1.14 German Gulch at mouth above Silver Bow Creek

The moderately diverse group of non-diatom and diatom algae indicated relatively unimpaired water quality at site SS-15G. Relatively low tolerances to elevated concentrations of organic nitrogen, biochemical oxygen demand, heavy metals and inorganic nutrients were exhibited by the diatom assemblage. Overall biological integrity at site SS-15G was rated "good" in 2015 with only minor impairment of the aquatic biota by inorganic nutrients and sediment.

6.4.1.15 Silver Bow Creek in Reach P near Fairmont

The low diversity of non-diatom and diatom algae indicated moderate water quality degradation at site SS-16. High tolerances to elevated concentrations of organic nitrogen and heavy metals, and moderately high tolerances to biochemical oxygen demand, inorganic nutrients and sediment were exhibited by the diatom assemblage. Overall biological integrity at

site SS-16 was rated “fair” with moderately high impairment of the aquatic biota by inorganic nutrients, organic nitrogen, heavy metals and sediment.

6.4.1.16 Silver Bow Creek below Stewart Street at Opportunity

The low diversity of non-diatom and diatom algae indicated moderate water quality degradation at site SS-17D. High tolerances to elevated concentrations of organic nitrogen and biochemical oxygen demand, and moderately high tolerances to heavy metals and, inorganic nutrients were exhibited by the diatom assemblage. Overall biological integrity at site SS-16 was rated “fair” with moderately high impairment of the aquatic biota by organic nitrogen, heavy metals, inorganic nutrients and sediment.

6.4.1.17 Silver Bow Creek at Frontage Road

The diverse assemblage of non-diatom algae at site SS-19 suggested relatively high water quality, while the moderately low diatom algae diversity indicated some degree of water quality degradation. High tolerances to elevated concentrations of organic nitrogen, biochemical oxygen demand and heavy metals, and moderately high tolerances to inorganic nutrients and sediment were exhibited by the diatom assemblage. Overall biological integrity at site SS-19 was rated “fair”, with moderately high impairment of the aquatic biota by organic nitrogen, heavy metals, inorganic nutrients and sediment.

7.0 VEGETATION[35]

7.1 INTRODUCTION

In 2015, Bighorn Environmental Sciences (Dillon, Montana) monitored four aspects of remediation and restoration in the Streamside Tailings Operable Unit (SSTOU): revegetation monitoring, which evaluates different reaches each year in rotation until that reach passes the performance standard after one decade; late winter-spring bird use, which evaluates different subareas each year in rotation; small-mammal monitoring; and limited soil sampling.

Revegetation in each reach or phase of the SSTOU is monitored in temporal rotation until it passes standards, usually after a 10-year performance period. This report contains the results of 2015 revegetation monitoring in Subarea 2 (Reaches F and G), Subarea 3 (Reach L), and Subarea 4 (Reaches S and T).

Appendix I contains photographs of revegetation monitoring in Subareas 2 and 4. Readers who have difficulty visualizing vegetation from canopy-coverage or shrub-density data might want to review that appendix now. Appendix J presents photographs depicting other aspects of revegetation from all reaches. Appendix L contains the critical species-composition summaries based on canopy coverage.

Montana Department of Environmental Quality (MDEQ) now handles mapping internally. The entirety of the SSTOU has been assigned consecutively numbered maps from the southwest edge of Butte (Map 1) to the I-90 crossing (Map 35). Maps relevant to revegetation monitoring in the SSTOU in 2015 include Maps 8 and 9 (Reaches F and G), Maps 14 and 15 (Reach L), Maps 27-29 (Reach S), and Maps 32-35 (Reach T).

7.1.1 Precipitation Effects

The SSTOU precipitation regime qualifies as semiarid. Here, seasonal and annual precipitation play such important roles in revegetation that this report begins with a precipitation summary. Some precipitation effects are direct, while others are indirect, e.g., they manifest as changes in groundwater elevation. Precipitation in May and June usually has the greatest direct effect on seed germination, plant establishment, and growth of cool-season plants, but antecedent soil moisture and the timing, intensity, and duration of rainfall all influence plant performance.

Average annual precipitation for the past 50 years at the Butte Airport was 12.5 inches [Table 7-1]. In a departure from the usual precipitation pattern, August-September during the most recent three years (2013-2015; 3.9 inches) almost equaled the typically wettest month of May-June (4.1 inches). From January through August, this year was the driest year since 1988 with 6.8 inches – 12 years before work on the SSTOU began.

[35] Chapter 8 was prepared by Rich Prodgers of Bighorn Environmental Sciences (Dillon, Montana) with minor editing and formatting by RESPEC.

The performance standards are intended to be applied in years of "near normal" precipitation. 2015 was a bit dry but certainly in the normal range. However, vegetation sampling preceded the heavy September rains (2.4 inches). As a consequence, it was a dry year relative to measured plant growth. Certainly meeting the performance standards this year indicates satisfactory revegetation.

Table 7-1. Precipitation at Butte, Montana.

Year	Precipitation (inches)	
	Annual	May and June
1964-2014 (mean)	12.5	4.4
1999-2009 (mean)	11.4	4.0
2010	15.4	6.8
2011	11.7	6.4
2012	9.1	3.8
2013	11.4	4.2
2014	14.9	4.2
2015	11.9	2.7
2010-2015 (mean)	12.4	4.7

7.2 METHODS

7.2.1 Revegetation

Revegetation sampling in established revegetation, which combines canopy coverage [Daubenmire, 1959] from plots along transects and shrub density from 1-m wide belts along the same transects, remains unchanged from previous years.

Canopy coverage was estimated in 20 0.5-m^2 plots at 5-m intervals along each 100-m transect. Plant cover was estimated as accurately as possible; cover classes were not used. Shrubs were counted if rooted in a 100-m belt transect. (Sometimes shrubs were too dense to quantify accurately, especially narrowleaf willow, which spreads from rootstocks.) Transects in Reach T were sampled for the first time; Reach G was previously sampled in 2011.

The long length of these transects reflects average site and vegetation conditions within a significant portion of a hydrologic zone better than shorter transects that have a greater chance of emphasizing aberrant spots. I attempted to place transects within a single hydrologic zone as mapped, but it turned out that hydrology in some cases changed since the mapping that initially guided revegetation, so some transects traverse more than one hydrologic zone.

To avoid littering the floodplain and banks with permanent markers (e.g., steel fenceposts that could also prove dangerous to equipment and recreational users), transects are located by GPS coordinates only. Thus, the identical plot locations are not assured, just the same approximate areas. An unpaired *t*-test is appropriate for comparisons through time, not the more powerful paired *t*-test. Small differences should not assume undue importance.

Reaches F and G are old enough to evaluate revegetation success using 2015 data. Desired conditions are listed in Table 7-2.

Table 7-2. Minimum desired stratified canopy coverage[36] approximately 10 years after seeding in years of near-normal seasonal precipitation.

Hydrologic Zone	Average Perennial Canopy Coverage
Uplands, Subirrigated	60%
Streambanks, Transition Zone	80%
Wetlands (not open water)	100%

Streambanks proper, the strip encapsulated with coir fabric, were not monitored due primarily to difficulty placing linear transects on curved banks and because dense, sometimes impenetrable shrubs interfere with placing transects. In Subareas 1 through 3, streambanks were among the easiest and most successful revegetation.

7.2.2 Soils

Four sample locations were subjectively located in Reach O to characterize coversoil with an additional two samples from a weedy spot (bladder campion) in Reach L. Each sample submitted to the lab was a composite of three samples taken within 10 meters of the initial hole and often half that distance. Samples consisted of the upper four inches at each location.

7.2.3 Laboratory Work and Data Analyses

Most data summaries are simple descriptive statistics, usually the mean. If used, confidence intervals are two-tailed with 0.1 Type I error, or one-tailed if used to compare to the desired conditions in Table 7-2. However, confidence intervals were not used this year to compare to desired conditions for the reasons previously described.

The Agvise lab (Northwood, North Dakota), analyzed soil samples for mineral nitrogen, Olsen phosphorus, ammonium acetate, potassium, and texture from hydrometer.

7.3 RESULTS AND DISCUSSION

7.3.1 Plant Cover and Shrub Density

7.3.1.1 Reaches F and G

7.3.1.1.1 Revegetation History

Approximately 17 acres north of the creek and two acres south of the creek in eastern Reach F were seeded in fall 2004; the rest remained unfinished. Two small, shallow ponds were

[36] Excluding annuals and noxious weeds.

constructed in the northeast portion. Due to springs, however, a much larger area north of the stream (upper half) developed wetland and transition-zone hydrology in the largely saline coversoil. By November, well after the initial seeding, surface water originating near the northern embankment west of the two ponds crossed the floodplain and was discharging into Silver Bow Creek. Some areas earlier composted with a TerraGator were by then too wet to walk through with rubber boots. Hydrology continued to change so that northeast Reach F became wetter than when it was seeded. Much of it was rescued by hand-seeding transition-zone, moist and salty, and wetland seed mixes in spring mud.

Geese exacted significant mortality in the two months following transplanting in fall of 2004, especially at the stream edge. Two thousand more willows were purchased for spring 2005 transplanting to replace those lost from the early mortality due to geese and frost damage.

In drier portions of the floodplain, 2014 seeding occurred while coversoils, with few exceptions, were dry and excessively fluffy following composting. The *in situ* islands around conifers that were deliberately spared, were not seeded because they were extremely rocky and weedy.

The lower (western) half of Reach F, which is mostly upland and secondarily subirrigated with some transition zone in one small area just south of the creek, was seeded in May 2005. Some disturbed upland areas south of the railroad tracks also were seeded. In the upland and subirrigated zones, a roller was used to compact the very fluffy seedbed following seeding. In fall 2005, Western Reclamation scarified those barren areas that were not too wet and I hand-seeded them.

In May 2005, the Reach F floodplain was planted. Roughly 90% of all transplants went into the wetland complex in upper Reach F north of the creek. Approximately 5% went into a transition zone unit south of the creek and another 5% into vacant banks.

Over in the wetland complex in upper Reach F, north side, young seedlings were trampled and did not germinate. This area was reseeded (hand-broadcasted) in all wet or moist portions lacking sufficient young seedlings. The ensuing vegetation bore witness to this hand-seeding far more than the initial mechanical seeding meant for a drier site, but salinity ordered plant communities as much as hydrology.

In uppermost Reach G, east of the creek, approximately 2.9 acres of upland and another 0.6 acres of subirrigated were seeded in spring 2005 when the western portion of Reach F was seeded. An isolated 0.9-acre pond was constructed there.

The edge of the pond and an island within it were hand-broadcast seeded using the mix of transition zone and streambank seed mixes. Chokecherry seed was also included, but our soils proved too much for them. As it turned out, the island and some pond margins were contaminated, so most of the transplants there died. At first, seeding didn't work well either. But as is often the case, the appearance improved so that repair was unwarranted when evaluated in winter 2007. Few woody plants survived, however.

In fall 2005 (and perhaps some in spring 2006), Reach G was seeded from the rock piles (UTM 370325) down to the west end of the westernmost pond (Pond #6) located entirely within Reach G (UTM 369525). At that time, 72% of Reach G had been seeded. The remainder was either not fully constructed or uncomposted.

Since 2005, the only revegetation efforts other than weed control were planting some ball-and-burlap cottonwoods that were planted along streambanks in 2010 and 2011.

In spring 2006, some additional areas east of UTM 369540 were seeded with the same mixes used in fall 2005. The fall and spring seedings are essentially of the same age in that seed germinated in spring 2006. Areas west of UTM 369540 were not seeded until later and did not germinate until spring 2007.

In addition, the Montana Pit borrow area (18.7 acres) was seeded in spring 2006 using two sacks of Bozoisky Russian wildrye and one sack of Ranger alfalfa. The two species were seeded in alternate rows.

The final (western) portion of Reach G, 27.1 acres, was seeded in fall 2006 (heavy seed) and late winter-early spring 2007 (light seed). The Blahnik staging area was seeded in 2006. Results were poor, weeds were abundant, and it was reseeded replete with seedbed preparation in spring 2008. Beyond that, the only revegetation efforts other than weed control were planting some ball-and-burlap cottonwoods in 2010-2011 and some eight-gallon sandbar willows in late summer 2011. All were planted along streambanks.

7.3.1.1.2 Plant Cover and Species Composition

Reaches F and G are now eligible for comparison to the desired conditions in Table 7-2 for "release" if the conditions are met. Reaches F and G were sampled in 2015 along the same transects sampled in 2011 [Prodgers, 2013a] with a few unavoidable changes mentioned in the field notes [Table 7-4]. Perennial cover in the three sample years is summarized in Table 7-3. Some areas have become one class wetter, shifting the hydrologic regime of transects representing them (e.g., from transition zone to wetland in Transects 63, 67, and 68).

Table 7-3. Perennial canopy coverage for sample transects in Reaches F and G, 2008, 2011, and 2015.

Transect	Hydrology	Perennial Cover (%)[37]			Comments
		2008	2011	2015	
54	Upland – subirrigated	102	108	49	Pocket gophers
55	Transition - wetland	71	104	99	Mostly native grasses
56	Upland – subirrigated	51	85	81	Mainly native grasses
57	Upland	104	107	64	Impaired; lost alfalfa, diversity
58	Transition (15 m wet)	114	122	86	Diversity and plant cover reduced
59	Upland	77	96	52	Pocket gophers main cause reduction
60	Upland	48	62	59	Little changed from 2011
61	Subirrigated - transition	72	72	102	Mostly bird's-foot trefoil
62	Mostly transition	75	99	97	More bird's-foot trefoil, fewer forbs
63	Transition - wetland	-	86	112	Great; lots more bird's-foot trefoil
64	Transition – subirrigated	77	94	83	Baltic rush replaced diversity
65	Subirrigated - upland	79	66	70	Cover same, western aster increased
66	Subirrigated and transition	95	104	77	Most grasses declined; center subirrigated
67	Wetland - transition	67	-	94	Wetter than previously
68	Wetland - transition	91	99	101	Dominated by two grasses; wetter
69	Transition – subirrigated	52	-	62	Probably contaminated

Ten of fourteen locations sampled in 2015 showed a downward trend from 2011. In uplands and the subirrigated zone, mean perennial cover was 76 ±12% in 2008, 88 ±11% in 2011, and 65 ±9% in 2015; a significant reduction over the past four years. While it passed the desired conditions in Table 7-2, the downward trend persuades me that these reaches should be sampled one more time following repairs. However, at two upland sites, pocket gophers appear to have caused the reduction in perennial plant cover.

In the transition zone, mean perennial cover was 88 ±23% in 2008, 102 ±12% in 2011, and 93 ±9 in 2015. The 9% reduction from 2015 to 2011 is not statistically significant. Still, it indicates an unwelcome trend. The two main candidates are saline soils and residual contamination, both of which are present in places in both reaches. Reach G in particular had a lot of saline dirt, and in the first years, alkaligrass was the most prevalent species.

Previously none of the transect locations qualified as wetlands, but with the wetter hydrologic regime in some areas, three qualified in 2015. (With just three samples, confidence intervals are almost guaranteed to be broad.) Mean perennial cover was 102 ±15%. The desired wetland conditions [Table 7-2] were achieved.

7.3.1.1.3 Shrub Density and Field Notes

Species composition for each transect is in Appendix L. Photographs of sample transects are in Appendix I.

[37] Does not include annuals, biennials, or noxious weeds.

Table 7-4. Field notes from vegetation transect monitoring in Reaches F and G.

Transect	Species	Individuals per hectare					Description
		0-0.5 m	0.5-1 m	<1 m	>1 m	All sizes	
54	No species						Pocket-gopher infestation is largely responsible for the reduction of plant cover, loss of diversity, and profusion of tumblemustard in the second half of the transect. The first half is mainly basin wildrye. No shrubs were counted along the transect.
55	*Salix exigua*			7,000	4,700		This is one of the transects that seems to have become wetter. The shrub count is approximate as it must be with vegetatively spreading narrowleaf willow.
56	No species						About half of this transect is in salt-impaired dirt. No shrubs were within the sample area.
57	*Ericameria nauseosa*	100	100				This transect was shortened by the trail, which was built after the transect was placed. Only 14 plots could be sampled at 5-m intervals with both endpoints sampled. Spots of obvious impairment are present (e.g., at #9).
	Sarcobatus vermiculatus	100					
58	*Rosa woodsii*			100			The first half of the transect is dominated by creeping meadow foxtail and the other by yarrow. Some contamination is evident. About 15 m of the transect length is wetland.
	Salix bebbiana			200	900		
	Salix exigua			300	200		
	Shepherdia argentea			100			
	Symphoricarpos occidentalis			100			
59	*Artemisia tridentata*					4,200	Pocket-gopher damage is evident all along. Consequently, as at Transect 54, tumblemustard has replaced perennials. Where alfalfa is dense, almost no grass is present. Almost all shrubs are in the east end, an area I hand-seeded.
	Ericameria nauseosa					300	
60	*Artemisia cana*	800					This area has low plant cover and lots of sheep fescue but also lots of shrubs. Some big sagebrush has died.
	Artemisia tridentata	3,600	1,400				
	Ericameria nauseosa	1,500	900				
61	No species						Bird's-foot trefoil comprises more than half the relative cover. Portions are subirrigated, others transition zone. I put it in the transition-zone category when summarizing plant cover. Contamination is evident near the end of the transect. Just two Booth willow shrubs were counted, one taller than one meter, one less. A total of 200/ha.

62	No species						No shrubs were present on the transect. Some Spartina (cordgrass) is evident in the foreground of the Figure K11 in Appendix K.
63	*Rosa woodsii*			200	100		The origin of the transect begins in standing water, so wear rubber boots here.
	Salix bebbiana				100		
	Salix exigua			400	200		
64	No species						This transition-zone transect shows contamination. Baltic rush provides 82% of relative cover. No shrubs were observed along t he transect.
65	*Ericameria nauseosa*	900	200		200		Starts moist and gets drier in the west. The soil is better in the west too. The first part of the transect has more aster and alkaligrass. I changed the endpoint slightly to 0175/5783.
	Sarcobatus vermiculatus	200					
66	*Artemisia cana*	500					Both ends are transition zone, whereas the center in subirrigated. The transect ends at 9735/5525, a slight change.
	Ericameria nauseosa		100				
	Rosa woodsii	300	100				
	Salix geyeri				100		
67							A wetland. Very few inflorescences on the sedges. There were too many willows to count here: narrowleaf, Bebb, Booth, and Geyer.
68	*Salix exigua*		1000				This transect is mainly in wetland hydrology with a bit of transition zone at the origin. Tufted hairgrass dominates the understory.
	Salix geyeriana	100					
69	*Ericameria nauseosa*	200	200				North of Sheep Gulch Pond, an area with much residual contamination but not much here. Both subirrigated and transition-zone hydrology are present. The rabbitbrush denotes subirrigated.

7.3.1.2 Reach K

While Reach K wasn't sampled this year, I inadvertently counted surviving transplants in protectors both along banks and behind the banks thinking I was in Reach L. Of 71 plants, 58% survived. Compared to 2015 sampling in Reaches R and T, this is good survival and more so because the plants are older in Reach L.

7.3.1.3 Reach L

Table 7-5. Field notes from vegetation transect monitoring in Reach L.

Transect	Species	Individuals per hectare		Description
		<0.5 m	>0.5 m	
L-1				Vegetation at L-1 has too much alfalfa and too little grass, which is a function more of spring precipitation in the establishing year than seed mix. Alfalfa provided 83% of relative plant cover. The spots without alfalfa have poor dirt, it appears. A single rabbitbrush shrub was sampled in the 0-50 cm height class indicating 100/ha.
L-2				Transect L-2 represents one area (the other is across the creek) that had a bladder campion infestation and consequently, a lot of herbicide was applied. Whatever the cause, perennial plant cover in 2015 was just 15%. The adjacent dirt along the creek, not just the coir zone, is just fine, so one suspects poor dirt, but I sampled it and could find no limiting property other than possible over-fertilization. I hand-seeded this area again in 2015.
L-3	*Artemisia cana*	200	400	The final transect sampled in 2015 is just above the RR bridge denoting the boundary to Reach M. This is good revegetation, albeit with as much relative alfalfa as at L-1.

7.3.1.4 Reach R

Revegetation was monitored in Reach R in 2014. Reach R was not monitored again in 2015. During small mammal trapping, an informal count of large woody plant transplants was made of those planted in browse protectors. Of 56 shrubs counted, 29% were alive. Such is the effect of banks 40 inches or more above a flow of about 75 cfs at Opportunity. Depth to water from the top of the banks limits shrub survival.

7.3.1.5 Reach T

7.3.1.5.1 Revegetation History

Remediation entailed, in different areas, removal, coversoiling, and liming. In situ substrates were broadcast and harrow seeded. However, on coversoil, the heavy seed was drilled and the light seed broadcast.

Reach T was first seeded in fall 2013, including the meander tabs that were added at the request of NRDP before floodplain seeding due to the high floodplain. The term “meander tabs” refers to a zone along outside curves that was lowered one-half foot to one foot so that high flows would overtop them. The tabs were hand-seeded during construction and then covered with coarse coir fabric and staked in place. The loose fabric was intended to protect the tabs but there was concern about how to protect the frabic and ensure that it did not peel off entirely causing

more damage than if there had been no fabric. Planting willow cuttings on the meander tables to anchor it them in place was impractical due to stratigraphy. Instead, meander tabs were hand-seeded a total of three times with a seed mix containing several species of sagebrush, shrubs and forbs, to provide lots of taprooted plants.

Before remediation, weed control was averted. Other reaches in Subarea 4 had roughly equal weed abundance, but control there began in advance of remediation. Reach T had severe weed infestations following seeding. The year before remediation, some limited weed control was implemented in the unremediated northwest corner from the Mill Creek channel east to the remediation boundary. This corner had a lot of whitetop, knapweed, Canada thistle, and other noxious weeds, but it was not the only weedy portion of Reach T.

Although compost amendment was generally ineffective on the SSTOU, Reach T dirt was amended with compost. Compost rates are described in the construction summary. Seeding here was postponed until 2014 due to multiple tillages of lime, fertilizer, and compost. However, the whitetop was stimulated by the tillage, promoting infestation density.

It was predicted that much of Reach T would be so wet that the act of seeding might be prevented. However, that prediction was erroneous. The floodplain turned out to be almost entirely upland hydrology, including the tops of streambanks. The blend of subirrigated and transition-zone purchased for Reach T was never used there. Instead, the entire floodplain was seeded with an upland mix. The banks and overflow channels were seeded with a subirrigated mix in spring or whenever construction allowed before covering with coir. Altogether, this was a rather small fraction of Reach T. Most banks and meander tabs were unsuccessfully seeded during construction, so I began a program of hand-seeding there that continued through the following spring. Ultimately, this hand-seeding was effective.

Transplanting occurred in fall 2014. Most plants were assigned to streambanks, the rest to pond margins with a few plants along overflow or drainage channels connecting ponds. Additional seeding occurred in 2014 but some seeding lacked alfalfa and therefore plant cover is low. Weeds are prevalent in sections of Reach T.

7.3.1.5.2 Plant Cover and Species Composition

The data collected in three of the four Reach T transects has been misplaced. Data included in this report pertains to the ARCO loadout area, which is not representative of the larger area.

7.3.1.5.3 Shrub Density and Field Notes

The banks in Reach T are high and steep with a “coir log” in the best transplanting zone. I measured survival of the big, fenced plants in 2015. In all, 185 plants were sampled, 96 around ponds and 89 on streambanks. These plants are expensive to purchase, plant, and fence. The apparent survival rate for both planting zones was identical: 42%. Such high first-year mortality effectively doubles the cost per surviving plant just one year following planting.

Table 7-6. Field notes from vegetation transect monitoring in Reach T.

Transect	Species	Individuals per hectare		Description
		<0.25 m	>0.25 m	
T4-63	*Artemisia cana*	100		The ARCO loadout or dirt-transfer site just north of Stewart St. was seeded in spring 2014. The seed mix apparently lacked alfalfa. Plant cover would be considerably greater with the legume. Kochia had no opportunity to drop seed here before seed germination, so in that sense it got off to a better start than the rest of Reach T.
	Atriplex canescens	200	200	
	Ericameria nauseosa	200	200	

8.0 SOILS[38]

8.1 INTRODUCTION

The simple goal this year was to check fertility in the most recent coversoil laydown, also checking texture for compliance with the soil properties required by the work plan. Soil pH and electrical conductivity were measured from saturated paste.

8.2 METHODS

In Reach L, two samples were taken from the narrow floodplain with a persistent bladder campion (weed) problem . Perennial plants have been stifled. Here, the 0-2 inch depth interval was sampled. In Reach O, the 0-4 inch depth interval was sampled. Otherwise, sampling protocols were the same.

Sample locations were subjectively chosen to represent portions of the floodplain.

In sampling, a single aggregate sample was blended from three subsamples located within five meters of the initial sample for which the location was recorded. All samples were dry, so the subsamples were blended onsite through collective sieving.

Agvise Lab (Northwood, North Dakota) measured fertility as nitrate, ammonium, Olsen P, and sodium-acetate K. Soil pH and electrical conductivity (EC, salinity) were analyzed from saturated paste.

8.3 RESULTS

Soil characteristics are summarized in Table 8-1. Sample locations are not being mapped for this report because soil properties were similar among locations.

[38] Chapter 9 was prepared by Rich Prodgers of Bighorn Environmental Sciences (Dillon, Montana) with minor editing and formatting by RESPEC.

Table 8-1. Soil characteristics from selected sites in Reaches L and O, 2015.

Site	pH	Electrical conductivity (dS/m)	Nitrate (ppm)	Ammonia (ppm)	Phosphorus (ppm)	Potassium (ppm)	SAR ratio	Texture
Campion N	7.4	3.3	72	9	15	1800	3.3	Clay loam
Campion S	7.4	4.1	78	6	30	1800	4.1	Clay loam
O-NW	7.9	4	4	6	6	1300	4	Sandy clay
O-NE	8	0.5	1	3	5	2000	0.5	Clay loam
O-MidE	8.2	0.8	3	5	5	1200	0.8	Clay loam
O-SE	8	0.7	1	4	3	1200	0.7	Clay loam

The campion sites in Reach L indicate over-fertilization, particularly nitrate. This perhaps explains the problem in establishing perennials as no other edaphic limitations are evident. There is an optimal level of nitrogen for establishing plants, but at some point too much nitrogen is harmful unless almost immediately immobilized in vascular plants. I prescribed 25 nitrogen (ppm), about one-third the current level, which has no doubt reduced with time and the weed crop.

Reach O was sampled before fertilization. It shows that Fertilizer A (lacking potassium) is the correct fit. This fertilizer was later applied, although it was not disced. The only problem is that one sample east of the creek has clay texture as described in the work plan.

9.0 BIRDS[39]

9.1 INTRODUCTION

Bird sampling began in Subarea 3 of the Streamside Tailings Operable Unit (SSTOU) in March 2011 and in Reach P of Subarea 4 in 2010. The Natural Resource Damage Program (NRDP) sponsors these bird inventories to document temporal changes in bird use of remediated and restored areas as vegetation develops. Of particular interest are vertical structure and changes in shore characteristics and associated bird use [Braile and Dunning, 2003]. The importance of vegetational structure to birds has been known since the early 1960s [MacArthur, 1964] and is a cornerstone of bird ecology.

Bird use is tied to habitat, notably shrub and tree height (perching diversity), food (e.g., seeds, currants, and silver buffaloberries), and thermal and escape cover. MacArthur [1964] divided foliage by height into three classes generally corresponding to herbs, shrubs, and trees. MacArthur [1964] measured foliage density in each stratum and quantified it with a proportional abundance index (Shannon Index; also used in this report). MacArthur [1964] found a linear relationship between foliage height diversity and the number of bird species which was also observed in other continents.

The two principal habitats in the SSTOU are: 1) steppe and meadow (grassland including alfalfa) in the floodplain, and 2) open water and riparian habitat. Riparian habitats often develop into tall shrub communities. Water, especially ponds, can be a key habitat factor present as soon as construction ceases and accounts for much immediate use. Some types of birds increase in response to vegetational development; others prefer a more open or secluded habitat.

One fundamental question has always been, 'how much change or variance in bird use occurs from day to day by chance alone?' We investigated this in 2014 by sampling Subarea 2 twice each month, one week apart.

Sampling additional dates inevitably resulted in more species being observed. Of the 16 fresh species observed in Subarea 2 in 2014, 10 were seen on the first date, six on the second date. Since the interval between the paired dates is one week and the next sampling is three weeks away, this is about what one would expect. Some of the second date additions might have been picked up the next month, but they also might be missed.

The net effect of sampling date on mean species sampled for all four months is about one percent. In other words, more birds may be observed on the early date one month and the late date in another month; random plusses and minuses cancel. Looking at each month individually, the mean absolute difference between dates was 12.5%. March, when the difference was about 20%, showed the biggest proportional difference.

[39] Chapter 10 was prepared by Rich Prodgers of Bighorn Environmental Sciences (Dillon, Montana) with minor editing and formatting by RESPEC.

Retaining our focus on species, the effect of sampling date is greater in the early months, probably because migratory fowl are more prevalent then. It may or may not be coincidence, but sampling even a few days later netted about 13.5% more species in March and April. The difference in May and June was negligible.

Species equitability, like species richness, showed more effect of sampling date in the early two months (16%) than in May and June, which hardly differed. Summing up so far, the effect of date on species is more pronounced in March and April than later in spring. A later sampling date tends to capture more species more equitably distributed, a trend seen also in other years and subareas.

Turning now to bird abundance, the biggest relative differences once again are in the earlier two months, but this time a later date does not necessarily connote more birds, which is understandable because migratory bird use can be transitory. In the short term, arrivals and departures are unpredictable. Equitability among stations again showed most difference in March and April, and again the later date experienced greater equitability.

9.2 METHODS

Nate Kohler has sampled SSTOU birds from the start. Methods and station locations remained unchanged. Sampling occurred at the end of each named month with the exception noted in the preceding paragraph. Both Subarea 3 and Subarea 4 were sampled from the top down visiting each station sequentially in the order they are numbered. Bird sampling locations in Subarea 3 are on maps 8-12. Subarea 4 bird sampling locations are on maps 24-34 (excluding map 29).

To be included in the species list or counted at a station, birds must use habitat within the remediated area, not merely fly over. To be listed, species need not appear in sample data (i.e., they can be observed while moving between sample locations or on nonsample dates). Species can also be added by reliable observers other than Nate whenever they are observed using the remediated zone.

9.2.1 Data Analysis

After revegetation is complete, each subarea is evaluated separately in temporal rotation. Each subarea is assigned 20 sample stations, most near the creek. Number of birds counted is one measure of use, species richness another. Counts can be evaluated with two denominators: temporally (by month and year) and spatially.

Counts at first seem straightforward, but eruptions can complicate interpreting use patterns. A flock of 100 snow geese may use a pond for a short time and, by chance, either be counted or not. Cliff swallows are tied to bridges and typically don't arrive until May. To further complicate their influence on the bird inventory, they are late risers and the bird survey starts at dawn, so the count can be influenced by the direction in which a subarea is sampled (from top down or bottom up), depending on bridge locations. Sometimes we arbitrarily limit the count of cliff

swallows in data analysis so that monthly use by all species can more clearly be seen, but this was not done in 2015.

Another number, the Shannon index (called equitability) quantifies evenness of relative abundance. (*Relative* abundance means the counts are converted first to percentages.) It was calculated here using natural logs. For example, in 2009, 348 birds were counted on April 4 representing 21 species. But 63% of those birds consisted of just two species: mallard ducks and Bohemian waxwings. The Shannon value for species was 1.89. If each species had been represented equally (the mean of 16.6 birds/species), equitability would be maximized at 3.04. The only way that number could increase further would be if the number of species increased; since the calculation is based upon relative abundance, increasing the number of individuals would have no effect. If all 348 birds were of the same species, the Shannon value would be zero. There is no Shannon value for zero birds, which can happen when evaluating station use, in which case a zero is entered when summing the individual Shannon values for each station.

Among the parameters summarized are:

- count and list of all bird species observed in Subareas 3 and 4;
- total number of birds by month from standardized counts;
- species richness and species use by month;
- bird quantity and species per station; and
- Shannon index (sometimes called equitability and here calculated using natural logs) for species and stations.

Comparisons are made to previous bird monitoring reports [Prodgers, 2007; 2008; 2009, 2010; 2011; 2013b; 2013c; 2015a; 2015b].

9.3 RESULTS AND DISCUSSION

The cumulative summaries provided here blend sometimes contrary trends for individual species and can mask differential use by habitat specialists. Bird species composition is the best measure of habitat use.

The current bird species lists for Subareas 3 and 4 conclude each section.

9.3.1 Subarea 3

The 2011 bird sampling in Subarea 3 (sample points 41-60) was for the most part a preremediation baseline with only the upper reach remediated and vegetated. During the 2015 sampling, Reaches K-M were vegetated while Reach O was in the final stage of construction, basically bare dirt but with some seeded plants along the streambank. The final sampling point was near Fairmont Road. The bridge over Silver Bow Creek there provided an important structure for cliff swallows, which influenced results when that species was abundant (in May and June).

Durant Canyon presents a narrow to nonexistent floodplain with contrasting habitats on both sides (e.g., Douglas-fir forest and mountain-mahogany cliffs), so special care must be taken to tally birds only within remediated areas. Nonetheless, continuity of investigators is desirable and has been achieved.

Month of sampling always plays a big role in bird dynamics, but nowhere more so than in Subarea 3. While spring seems to come earlier now than previously, March is still winter in the canyon. In March 2011, no birds were observed at fully half the stations. Equitability among stations was very low. By June 2011, bird use was much higher with ring-billed gulls and cliff swallows playing outsized roles.

Bird use is up considerably since the preremediation condition in all but June [Figure 9-1], when cliff swallows and ring-billed gulls boosted the population in 2011. Without those two species [Figure 9-2], the temporal pattern of increased bird use is clearer.

Station equitability increased greatly following remediation and revegetation [Figure 9-3]. In 2011, bird use was concentrated in the upper remediated and seeded reaches, whereas in 2015, bird use was far more evenly spread throughout Subarea 3. Still, there was considerable variation among stations. The first and last four sample points, areas of broad floodplain, always had relatively high counts, whereas points 48-53 in the narrow canyon had relatively little use.

Species counted during sampling increased with revegetation in the first three months of sampling, but the number of species observed in June was unchanged [Figure 9-4]. Equitability of bird species use [Figure 9-5] also showed that bird abundance was spread more equitably among more species in 2015 than previously.

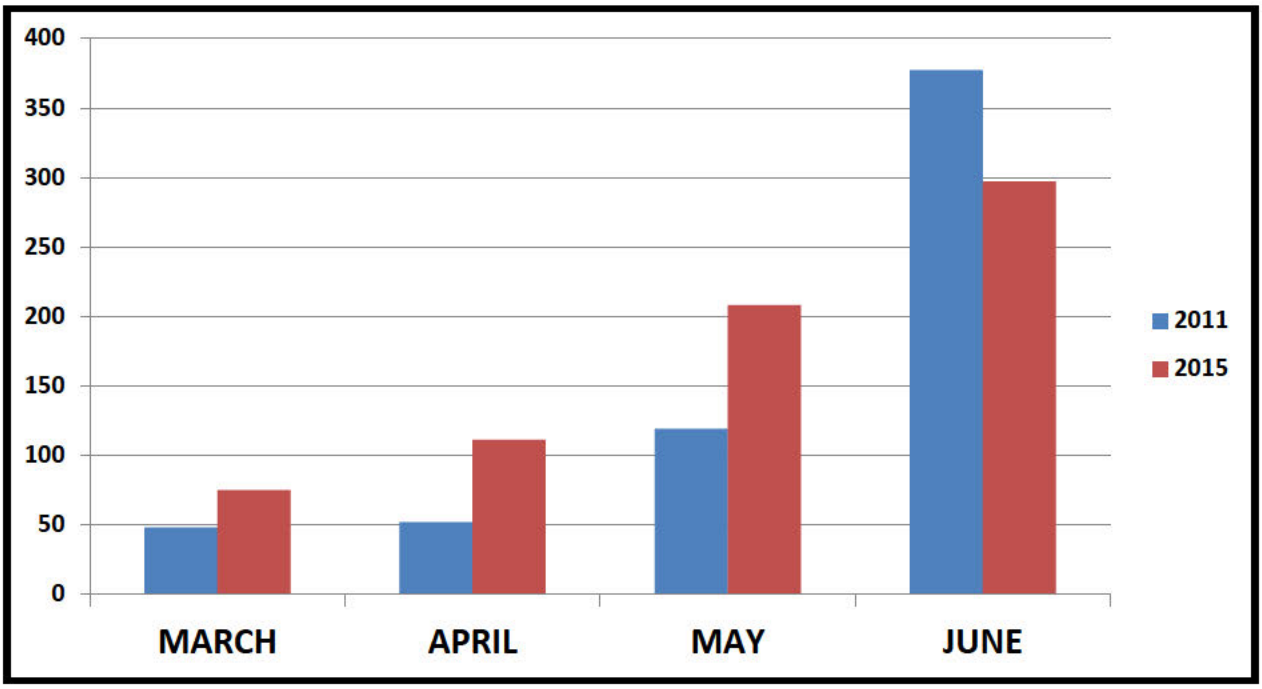

Figure 9-1. Subarea 3 bird counts.

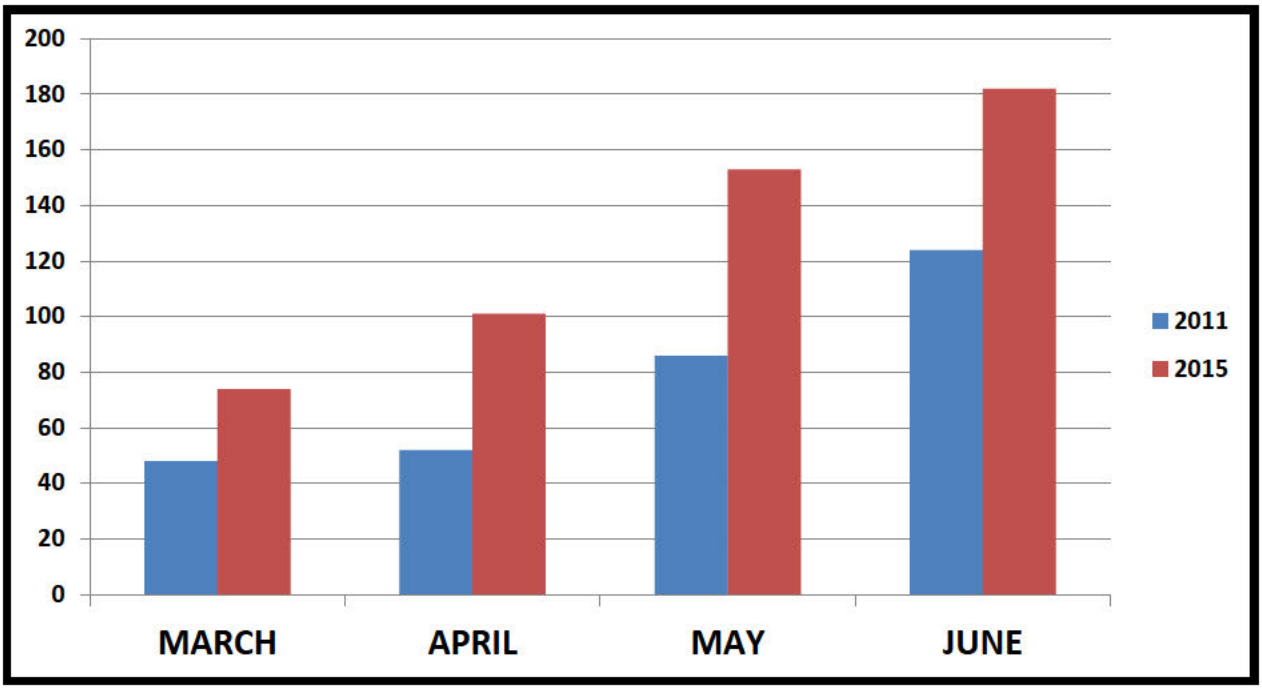

Figure 9-2. Subarea 3 bird counts without cliff swallows or gulls.

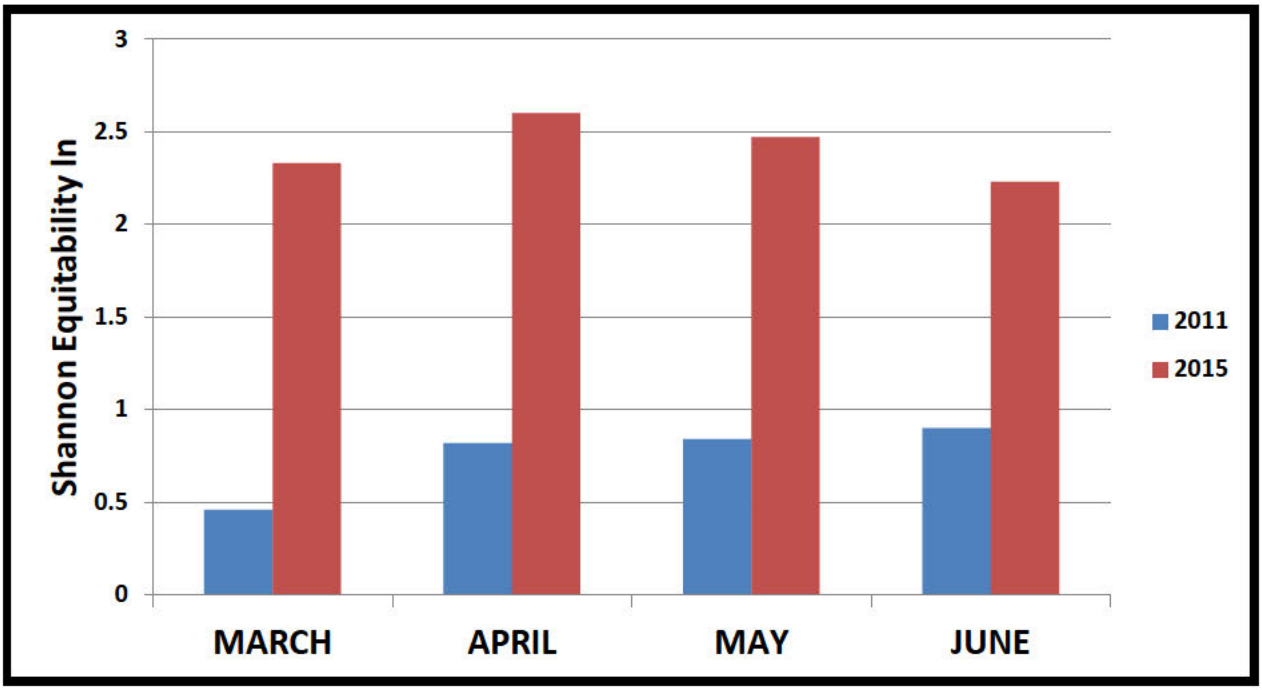

Figure 9-3. Subarea 3 station use equitability.

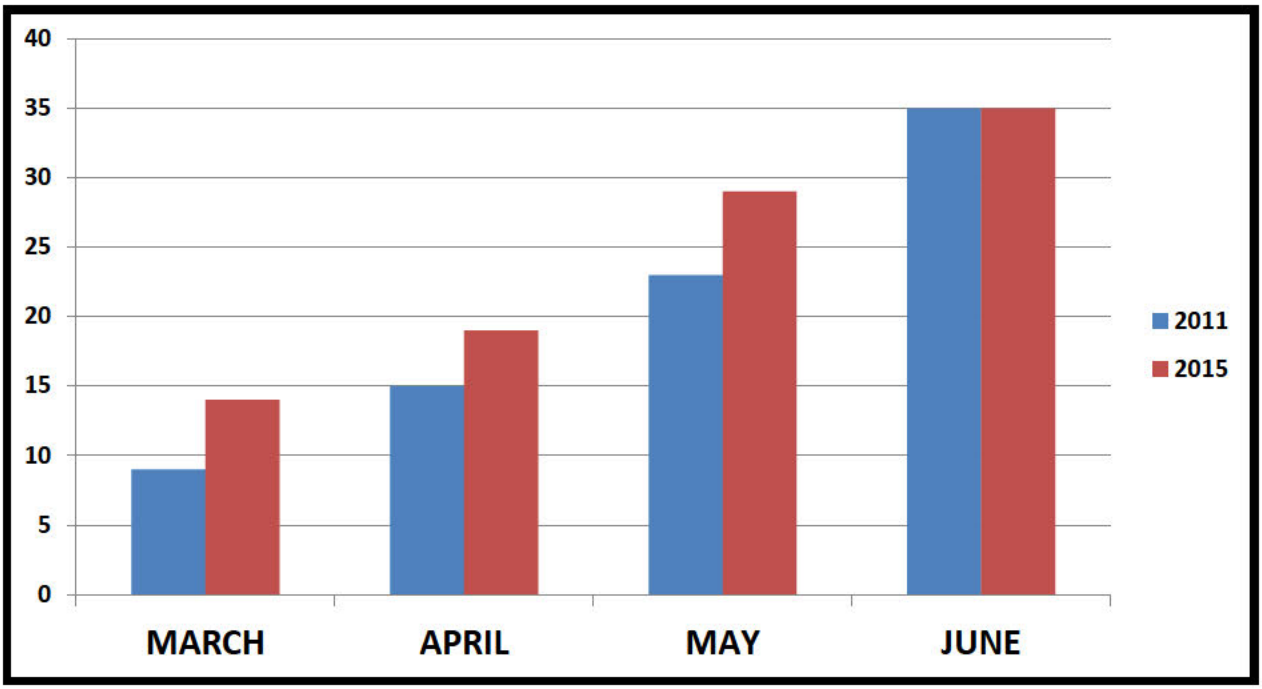

Figure 9-4. Subarea 3 species richness.

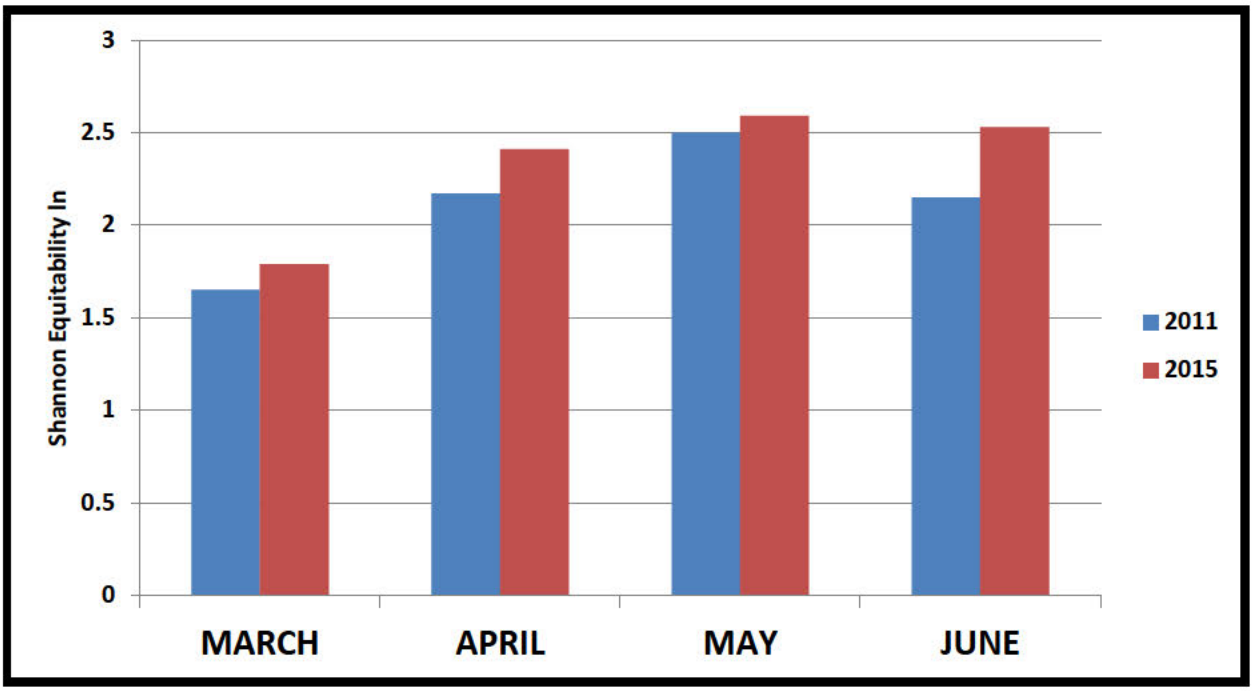

Figure 9-5. Subarea 3 equitability of bird species use.

9.3.1.1 Field Notes (2015)

9.3.1.1.1 March 29, 2015

- Three species were added to the Subarea 3 list (Barrow's goldeneye, belted kingfisher, and mountain bluebird) and one other (red-tailed hawk) was added during a dry run on March 22. All of these species would be expected and have been previously recorded in at least one other Silver Bow subarea.
- Only 14 species were observed on this date, with another nine species observed outside the remediated area. Of the nine species observed outside the remediated area, one has surprisingly not yet been recorded within the remediated area of Subarea 3 (dark-eyed junco) which was previously observed in Subareas 1 and 2.
- The ruby-crowned kinglet detected at Station 57 was observed at an earlier date than expected. Previously, the earliest observation date for the region was April 9.
- On this date, the floodplain had been reconstructed following remediation but vegetation growth had not yet become vigorous from Station 54 through Station 59. Construction was still underway around Station 60.

9.3.1.1.2 May 3, 2015

- Two species were added to the Subarea 3 list (cinnamon teal and northern shoveler). Both of these species have been previously recorded in at least one other subarea.
- Nineteen species were observed on this date and another 11 were observed outside the remediated area. Of those 11 species, one has not yet been recorded within the remediated area of Subarea 3 (Vesper sparrow) but was previously observed in Subareas 1, 2, and 4.
- Floodplain vegetational development growth and continuing construction were unchanged from March.

9.3.1.1.3 March 30, 2015

- Ten species were added to the Subarea 3 list (blue-winged teal, common yellowthroat, green-tailed towhee, lesser scaup, mourning dove, peregrine falcon, rock wren, Wilson's phalarope, Wilson's snipe, and yellow-rumped warbler. All but one of these species (green-tailed towhee) have been recorded previously in one or more of the other Silver Bow subareas. Peregrine falcon was added just a month prior in Subarea 4 on April 29, 2015.
- The green-tailed towhee was new for all Silver Bow subareas combined but expected in the habitat; it was detected outside the remediated area previously. Present in low numbers through the canyon section of Subarea 3, this individual was singing atop a residual (pre-remediation) willow right along the edge of remediation near Station 53.
- Thirty-five species were observed on this date, with another 16 species observed outside the remediated area. Of those 16, two have not yet been recorded within the remediated area of Subarea 3: vesper sparrow and Wilson's warbler; both previously recorded in one or more of the other Silver Bow subareas.
- Thirty-nine spotted sandpipers were recorded over all 20 points on this date.

- Unvegetated reaches appeared similar to March and April. However, some new plants began appearing in a few areas. Construction was still in progress near Station 60.

9.3.1.1.4 June 27, 2015

- Shortly after sampling was initiated on June 27, railroad repair crews and vehicles mobilized into Durant Canyon to begin work on trestles. Trestle repair activities impaired hearing in the vicinity of the trestles and likely influenced bird activity as well. Therefore, no data was collected on this day.
- Despite the repair activities, three new species were added to the Subarea 3 list (cedar waxwing, osprey, and red-breasted nuthatch). Both the osprey and the waxwing had been recorded previously in one or more Silver Bow subareas. However, the nuthatch had not been observed in any subareas previously. Present in moderate numbers through the canyon, red-breasted nuthatches are often detected outside the remediated area during sampling. Like most species associated with the nearby conifers, nuthatches likely do not spend much time along the stream, other than to quench their thirst or bathe on occasion. One individual was detected flying low through the riparian zone and may have been on the ground near Station 45.

9.3.1.1.5 June 28, 2015

- No disturbance marred the second attempt at a June sample of Subarea 3. Three species were added to the Subarea 3 list (Sora, Swainson thrush, and western tanager). Both the thrush and the tanager were new to all Silver Bow subareas combined. Both are present within the canyon (the thrush is generally less abundant than the tanager) and have been detected previously outside the remediated area. The tanager was observed at Station 50 and the thrush was observed at Station 57.
- Sixty-six species have been observed in Subarea 3 as of June 2015.

9.3.1.2 General Observations

This was the second sampling of Subarea 3; the first occurred in 2011. During the 2011, the floodplain through the upper third (Stations 41-46) was in post-remediation with essentially no vegetation. The remaining two-thirds (Stations 47-60) were still in pre-remediation condition and had existing riparian vegetation.

During the 2015 sample, vegetation through Station 46 was vigorous with areas near Stations 47-59 constructed and showing various degrees of new vegetation growth. Most of the areas where preexisting riparian shrubs were spared were located in the narrow portion where there is little to no floodplain. Various degrees of seeded vegetation were present from Stations 47 through 53. Below recently constructed stations 54-59, bare ground prevailed. Construction was still in progress during all four sample months from just below the fish-barrier impoundment to the Fairmont Road bridge. Station 60, located south of the bridge, was sampled while under construction.

Prior to the March 2015 sample, Station 59 was relocated in closer proximity to the recently constructed impoundment (fish barrier). This station was moved approximately 270 meters to

the north to facilitate better viewing of the water body. The new location coordinates are: 0361064 (easting) and 5098752 (northing).

9.3.1.3 Bird List

Table 9-1. Bird species list for Subarea 3.

Species	Species	Species	Species
American Dipper	Common Merganser	MacGillivray's Warbler	Red-tailed Hawk
American Robin	Common Raven	Mallard	Red-winged Blackbird
Barn Swallow	Common Yellowthroat	Mountain Bluebird	Sandhill Crane
Barrow Goldeneye	Double-crested Cormorant	Mountain Chickadee	Savannah Sparrow
Black-billed Magpie	Dark-eyed Junco	Mourning Dove	Sora
Black-capped Chickadee	Dusky Flycatcher	Northern Flicker	Spotted Sandpiper
Belted Kingfisher	European Starling	Northern Rough-winged Swallow	Swainson Thrush
Brewer's Blackbird	Franklin's Gull	Northern Shoveler	Townsend's Solitaire
Brown-headed Cowbird	Golden Eagle	Osprey	Tree Swallow
Blue-winged Teal	Gray Catbird	Peregrine Falcon	Violet-green Swallow
California Gull	Great Blue Heron	Pine Siskin	Warbling Vireo
Canada Goose	Green-tailed Towhee	Ring-billed Gull	Western Meadowlark
Cedar Waxwing	Green-winged Teal	Red-breasted Nuthatch	Western Tanager
Chipping Sparrow	Killdeer	Ruby-crowned Kinglet	Wilson Snipe
Cinnamon Teal	Lazuli Bunting	Red-naped Sapsucker	Yellow-rumped Warbler
Clark's Nutcracker	Lesser Scaup	Rock Wren	Yellow Warbler
Cliff Swallow	Lincoln's Sparrow		

9.3.2 Subarea 4

Reach P was singled out for temporal analysis without the blurring effect of adding new reaches as they come online. This is the last year for special treatment; it will be sampled one final time.

Beginning with the bird count, late winter (March-April) use increased most with the big increase coming after about three years [Figure 9-6]. It was difficult to identify a trend in gross number (May-June) except that 2012 was an anomaly with low counts and June 2013 included 90 cliff swallows (30% of birds that month). However, ring-billed gulls and savannah sparrows each provided at least 10% of the total.

The species count [Figure 9-7] is similar, with an increase in March-April species richness from 2010-2012 to 2013-2015. May bird use was about the same throughout the monitoring period, but June had more use in two of the three most recent years.

In Subarea 4 overall, the strong influence of Reach T (with pond habitats) is evident in the bird count depicted in Figure 9-8. Figure 9-9 shows the same trend for species. Actually, the net

effect combines adding Reach T to the analysis and perhaps a degree of temporal increase in bird use over time in upper reaches.

The groundwork for final (future) monitoring of Subarea 4 is considered through equitability among stations [Figure 9-10] and among bird species [Figure 9-11]. Comparing Figure 9-10 to Figure 9-3 (the 2015 data), Subarea 3 had more equitable bird use among stations. Equitability among species is much higher than among stations, but the same trend is evident with a peak in April [Figure 9-11].

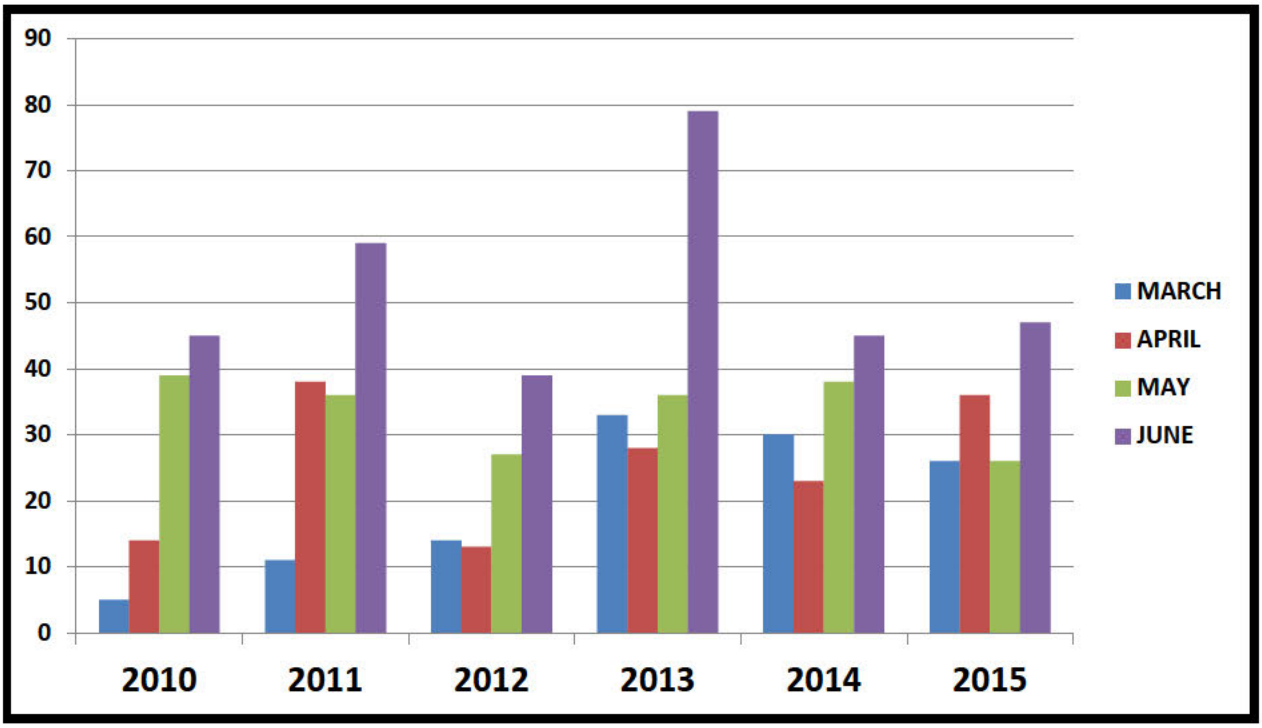

Figure 9-6. Bird counts in Reach P.

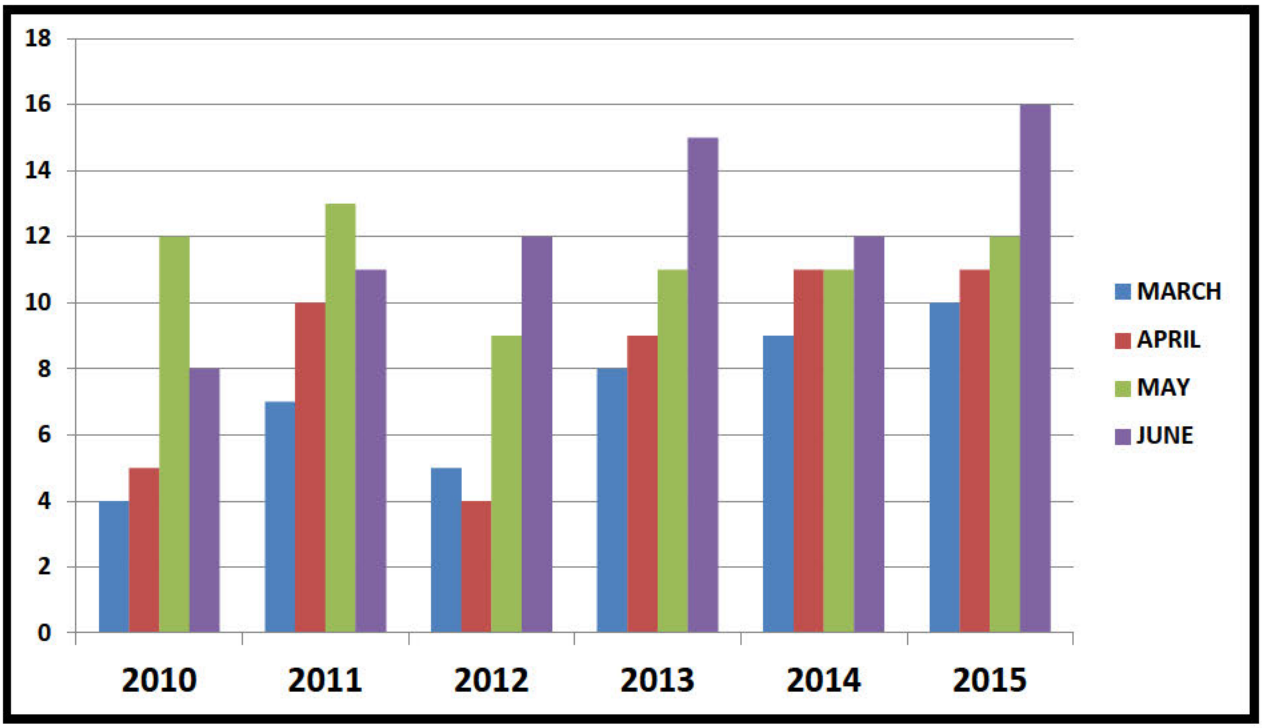

Figure 9-7. Species counts in Reach P.

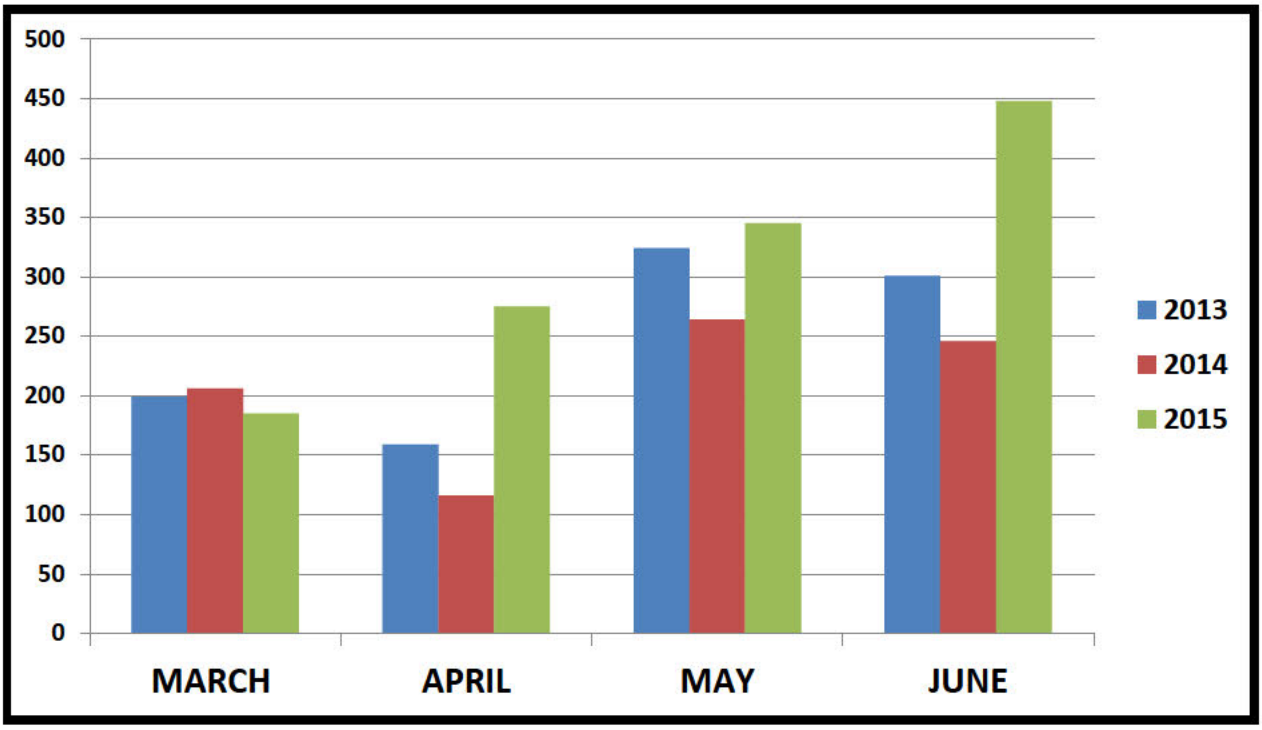

Figure 9-8. Bird census in Reach P and S (2013-2014) and Reach P and T (2015).

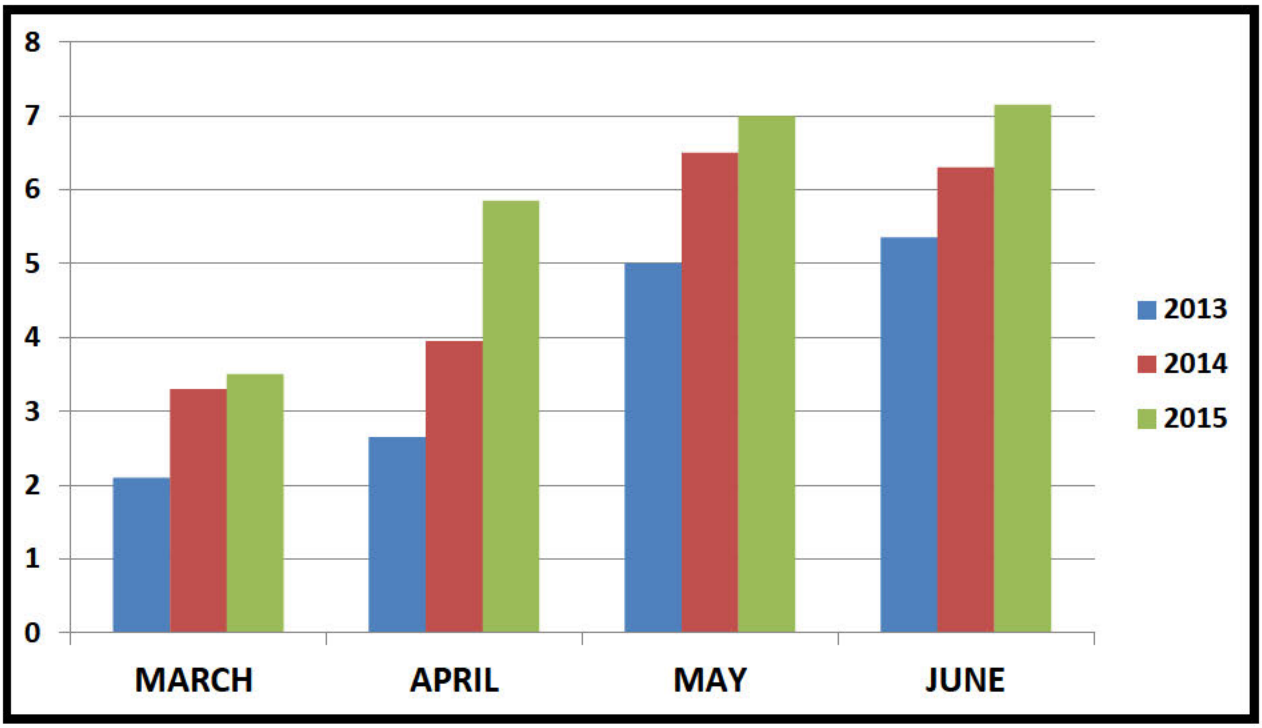

Figure 9-9. Mean species per station in Reaches P and S (2013-2014) and Reaches P and T (2015).

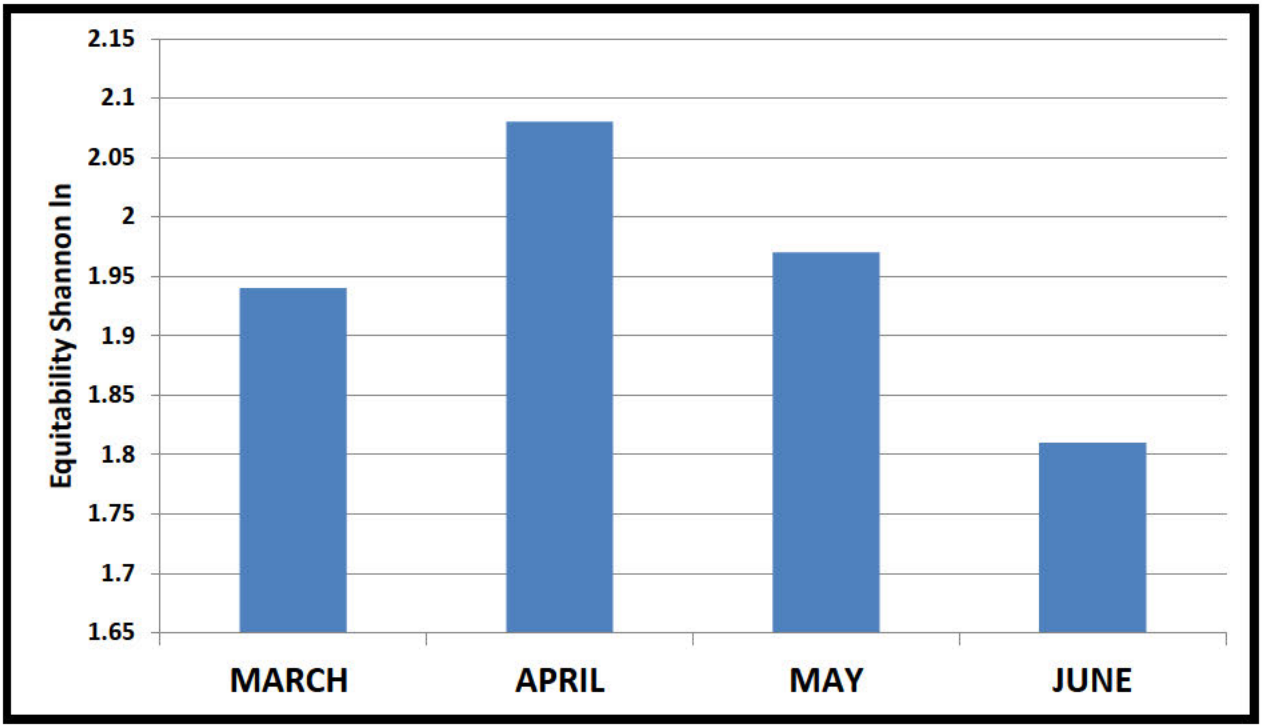

Figure 9-10. Equitability among stations in Subarea 4 in 2015.

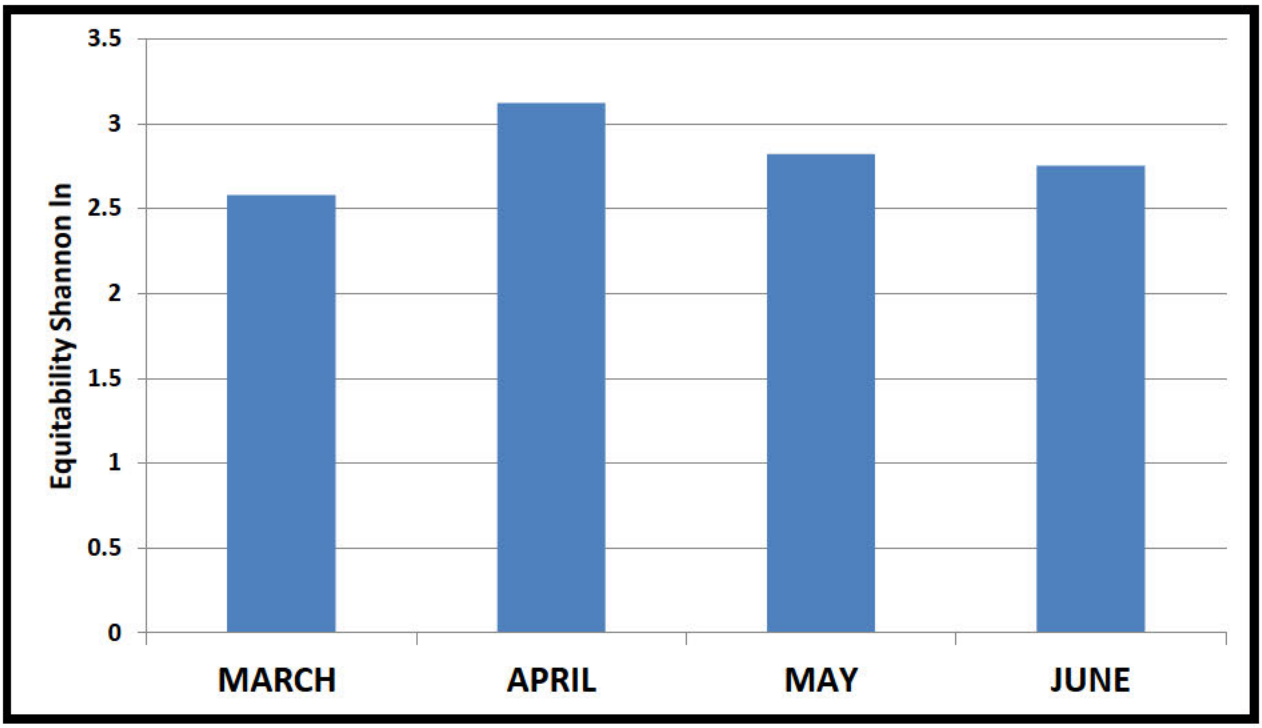

Figure 9-11. Equitability among species in Subarea 4 in 2015.

The influence of station on bird use is graphically summarized in Figure 9-12. While the mode and median are approximately of 7-8 birds per station, some stations had quite high birds per station and the mean was about 15 birds per station.

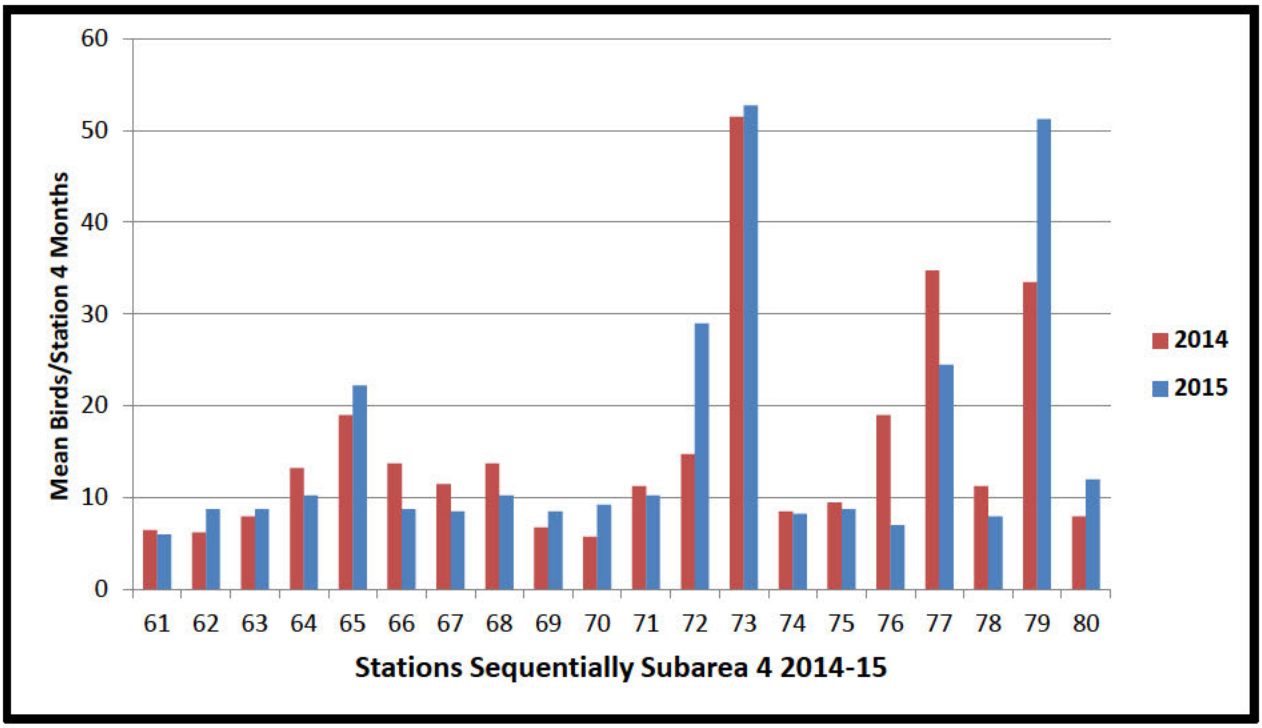

Figure 9-12. Mean birds observed per station in Subarea 4 (2014-2015).

9.3.2.1 Field Notes (2015)

9.3.2.1.1 March 30, 2015

- Two species were added to the Subarea 4 list – mountain bluebird and ring-necked duck. Both have been recorded in one or more Silver Bow subareas previously.
- As is fairly typical, the highest number of detections occurred at the pond near Station 73 and the ponds in Reach T.

9.3.2.1.2 April 29, 2015

- Two bird species were added to the Subarea 4 list – Eurasian collared-dove and peregrine falcon. The falcon was new for all Silver Bow subareas combined (later recorded in Subarea 3 on May 30, 2015). One subadult perched on the pump power pole near Station 69 and flushed on approach. The dove has been recorded previously in one or more Silver Bow subareas.

9.3.2.1.3 May 29, 2015

- Two species were added to the Subarea 4 list – marsh wren and Swainson's hawk. The hawk, detected as a low flyover between Stations 76 and 77, was new for all Silver Bow subareas. These hawks breed in low numbers in the upper Clark Fork Valley. The wren was detected at the pond near Station 73.

9.3.2.1.4 June 26, 2015

- Two species were added to the Subarea 4 list – common nighthawk and willow flycatcher. Nighthawks are common along the creek after the first week of June but this was the first observation in this subarea. A total of eight birds were detected feeding over Stations 78 and 79. The flycatcher is an indicator species and their presence (singing males at Stations 65 and 67) indicates that the riparian shrubs in the upper reach of Subarea 4 have attained growth adequate for their needs.
- One belted kingfisher was detected near the Stewart Street bridge between Stations 76 and 77.

9.3.2.2 General Observations

Beginning in March 2010, four stations (61-64) in the upper reach were sampled. Those same four stations were sampled again the following year. In 2012, eight more stations were added and sampled, for a total of 12. The following year (2013) an additional four stations were added and sampled, for a total of 16. By 2014, the standard 20 stations were in place and sampled during 2014 and again in 2015. It should be noted that the initial four bird stations in Subarea 4 (61-64) have been sampled yearly for six straight years. Next year (2016) will mark the first year since 2010 that these four stations are not sampled.

As was the case in 2014, due apparently to nearby ponds, Stations 73 and 78-80 averaged more individuals per species detections than those stations placed along the stream.

A total of 85 bird species have been recorded in Subarea 4 through June of 2015 [Table 9-2].

9.3.2.3 Bird List

Table 9-2. Bird species list for Subarea 4.

Species	Species	Species	Species
American Avocet	Common Raven	Mallard	Ring-necked Duck
American Coot	Cinnamon Teal	Marsh Wren	Rock Pigeon
American Crow	Clay-colored Sparrow	Horned Lark	Ruddy Duck
American Goldfinch	Cliff Swallow	House Finch	Sandhill Crane
American Kestrel	Common Goldeneye	Killdeer	Savannah Sparrow
American Pipit	Common Merganser	Lesser Scaup	Song Sparrow
American Tree Sparrow	Common Nighthawk	Lincoln's Sparrow	Sora
American Widgeon	Common Yellowthroat	Long-billed Curlew	Spotted Sandpiper
Bald Eagle	Cooper's Hawk	Merlin	Swainson Hawk
Bank Swallow	Double-crested Cormorant	Mountain Bluebird	Tree Swallow
Barn Swallow	Eared Grebe	Mourning Dove	Turkey Vulture
Barrow's Goldeneye	Eastern Kingbird	Northern Flicker	Vesper Sparrow
Belted Kingfisher	Eurasian- collared Dove	Northern Harrier	Western Meadowlark
Black-billed Magpie	European Starling	Northern Pintail	Willow Flycatcher
Blue-winged Teal	Franklin's Gull	Northern Rough-winged Swallow	Wilson's Phalarope
Bobolink	Gadwall	Northern Shoveler	Wilson's Snipe
Brewer's Blackbird	Golden Eagle	Osprey	Yellow-headed Blackbird
Brewer's Sparrow	Gray Partridge	Peregrine Falcon	Yellow-rumped Warbler
Brown-headed Cowbird	Great Blue Heron	Prairie Falcon	Yellow Warbler
Bufflehead	Greater Yellowlegs	Red-tailed Hawk	
California Gull	Green-winged Teal	Red-winged Blackbird	
Canada Goose	Hooded Merganser	Ring-billed Gull	

10.0 SMALL MAMMALS[40]

10.1 INTRODUCTION

This report documents 2015 small mammal sampling results in some major riparian habitat types following remediation. Habitat distinctions are mainly physiognomic. This year, a total of nine transects were sampled in Reaches C, G, H, J, R, S, and T. For the first time this year, comparison is made to a relict, nearly weed-free steppe or with shrub steppe at the transect terminus south of Ramsay in Reach G.

Birds, the other class of wildlife monitored, are among the most mobile organisms. Bird use is tied to habitat, tightly for specialists, loosely for generalists. Bird habitat requirements change temporally, including migration. In contrast, small mammals have restricted home ranges, and their habitat requirements vary less seasonally, although their population dynamic can be pronounced. Beginning in 2012, in revegetation of different physiognomic types and various ages, Bighorn Environmental Sciences (BES) began monitoring small mammals along Silver Bow Creek to complement bird monitoring. The final small mammal monitoring will be in 2016.

Waste removal and remediation of mine waste in the Streamside Tailings Operable Unit (SSTOU) destroyed some wildlife habitats, but revegetation and a cleaner stream provided more and healthier habitats. Considering quantity alone, remediation has proved beneficial for wildlife.

10.2 METHODS

Methods generally follow the Montana Fish, Wildlife, and Parks (MFWP) Diversity Monitoring Project - Small Mammal Trap-Line Protocol with some changes. Methods are next described.

10.2.1 Identifying Important Habitats

Important types of habitat must first be distinguished. Most habitats sampled in September 2015 are shown in Figure 10-1 through Figure 10-8. .

For birds, and to varying degrees other wildlife, physiognomic vegetation types are the basis for habitat distinctions in the Silver Bow Creek riparian zones. In physiognomy, the emphasis is on the appearance of vegetation regardless of its floristic composition; it refers to the overall appearance of a phytocenose. Additionally, introduced legumes, such as alfalfa in uplands and bird's-foot trefoil in moist habitats, play a big role in revegetation (nitrogen fixation and

[40] Chapter 10 was prepared by Rich Prodgers of Bighorn Environmental Sciences (Dillon, Montana) with minor editing and formatting by RESPEC.

productivity) and small-animal habitat (security and thermal cover). Some vegetationally defined habitats therefore incorporate legumes into their names.

Table 10-1. Important habitat types for the Streamside Tailings Operable Unit (SSTOU) as recognized by Bighorn Environmental Sciences.

Habitat type	Description
Tall shrub	The visual aspect is dominated by shrubs >2 m tall, also called woodland. Sampled twice this year. Woodland is an important physiognomic type for wildlife along the SSTOU, although others have greater acreage. Most often, it occurs along streambanks [Figure 10-1]. Two phases may be distinguished based on shrub density. The dense phase is difficult to walk through, almost impenetrable, and visibility is restricted to a few meters. Two communities of this type were sampled in 2013. Due to shading, the understory may be depauperate, depending also on soil moisture regime. The less common open phase has <35% tall shrub canopy coverage [Daubenmire, 1959] and a well-developed understory of herbs with perhaps some shorter shrubs.
Short shrub (or scrub)	The short-shrub or scrub type is also nanophanerophytes in Raunkiaer's life-form scheme. In the SSTOU, scrub is rare or absent and wasn't sampled this year. The more common rabbitbrush or grass type is shrub-steppe, which has elements of grassland with a shrub overstory.
Meadow	Meadow refers to forb-rich (usually) grasslands in moist habitats. In the SSTOU, this type occurs mainly in the hydrologically defined transition zone as well as the drier wetlands and wetter parts of the subirrigated zone. In revegetation, the forbs are usually legumes. This year, I sampled creeping meadow foxtail in Reach C and a more diverse native meadow in Reach J. Creeping meadow foxtail is invasive and wasn't seeded in the SSTOU, but it was seeded in Lower Area One. It forms monocultures, or nearly so.
Steppe	Steppe is the name for a drier (semi-arid) grassland, the grasses mostly having narrow blades. Trees and shrubs are few. If alfalfa is dominant or co-dominant with grasses, it's alfalfa-steppe. Three steppe habitats were sampled this year.
Shrub-steppe	In shrub-steppe, a layer of shrubs overtops the grasses. If alfalfa is abundant, the habitat is called alfalfa-shrub-steppe. At the Reach G/H boundary south of Sheep Gulch Pond, alfalfa -shrub-steppe featuring rabbitbrush was sampled for the third year.

Figure 10-1. Dense-tall-shrub woodland sampled in Reach C, 2014-2015. Silver Bow Creek is just left of willows.

While important, vegetation is not the only factor affecting rodent populations. For example, a single power pole in a meadow is a likely hawk or owl perch, depressing small-mammal populations locally. Domestic cats near ranch buildings can do the same thing, as can other predators. In addition, small mammal populations fluctuate temporally, sometimes periodically, for reasons imperfectly understood. It is one reason that sampling must be replicated temporally both to characterize use at a broader temporal scale and to detect trends, if present.

10.2.2 Sampling Protocol

Sampling begins with a linear 100-meter transect, in practice a 100-meter measuring tape. Usually it is straight, but a dog-leg configuration sometimes is necessary to keep transects within designated habitats. Endpoints are GPS'ed for relocation and mapping. Long transects confer a significant advantage over short transects in that local habitat anomalies are blended into the characteristics of larger habitat characteristics.

However, the dense tall-shrub habitat in Reach C was sampled by placing traps along the edge of the willows, just within or outside the stems. This is an "edge" rather than woodland per se. The strip of tall shrubs made it impractical to run a tape through them and also to service traps, especially those dragged by captives. Moreover, the strip of willows along the creek is just a few meters wide.

A pin flag was placed every 10 meters from the start, 10 locations in all. The origin was not sampled because it tends to be disturbed by sampling activity. Each line was sampled two consecutive nights and checked each morning.

The center of each sample station was the live trap. Snap traps were then placed in the four cardinal directions approximately two meters from the central trap with five traps in all (50 traps per night; 100 trap-nights per habitat minus any traps tripped without capture).

In dense vegetation, traps were placed in small natural openings, if available. They must be on firm substrate to function properly. At stations two and nine, one rat (snap) trap replaced one of the smaller mouse traps. The intent of the rat trap (from the MFWP protocol) probably is to catch larger rodents such as the packrat, also called the bushy-tailed wood rat. However, I know from experience that a robust boar packrat can shrug off a standard rat snap trap. No packrats have been caught yet on the SSTOU, but a few deer mice and voles were captured in rat traps.

MFWP used Woodstream Museum Special as well as Victor snap traps, but we stuck with Victors. My personal experience is that the Specials are too sensitive for this type of riparian sampling, tripping to easily (e.g., from wind or grasshoppers). Drickamer and Mikesic [1993] found from three years of trapping that Victor traps kill mice more frequently and effectively than Museum Specials, especially smaller mice, from which one might extrapolate that the Victors are better for shrews too.

I baited the traps evenings with rolled oats and a mix of peanut butter and paraffin. The wax helps prevent rodents from licking off the bait without tripping the trigger. But if too hard, the bait won't adhere to the trip-plate, so an heuristic approach to blending the constituents is required. On the Clark Fork, Prodgers [2013d] took some rodent measurements as prescribed by MFWP, but these data were never used and showed considerable range in dimensions, so specimen measurements are not taken on the SSTOU. All shrew specimens were preserved frozen and submitted to Paul Hendricks, retired zoologist with the Montana Natural Heritage Program. (We are indebted to Paul for his identifications again this year.) On the SSTOU, Paul has identified three species of shrew, but only two species were captured in 2015. Six *Sorex cinereus* (masked shrews) were captured mainly at the wet tall-shrub community in upper Reach H. An additional 11 *Sorex vagrans* (vagrant shrews) completed the count. Ten of them from Reach C where the two transects sampled proximate but different habitats. Meadow voles were the only representative of the Microtus genus.

The main deviations from the MFWP protocol follow:

- The big change is that the pitfalls were discarded because sampling along the Clark Fork River revealed that all but shrews escape them, and constructing them requires additional tools, materials, and labor. Shrews are frequently caught in snap traps, so they replaced pitfalls. The modified setup was to place the live trap near the pin flag and snap traps in a cross pattern for a total of 50 traps per line.
- Each habitat was sampled just two nights. This is the standard sampling protocol on the SSTOU.
- Data were recorded by trapline-night, not by individual trap location. The goal is to extrapolate to the larger universe of habitats, not to reduce focus to individual trap stations.

- Specimen measurements of feet, ears, and weight were curtailed. All we learned from taking these measurements in 2012 on the CFROU is that there is a lot of variance associated with each measurement relating to age, health, whether pregnant or not, and other factors.
- Only shrew specimens were preserved for professional identification.
- At the Reach C dense tall shrub habitat, the transect was run along the outer edge of bank willows. Crawling through the narrow strip of nearly impenetrable willows would have been too much, and snap traps are often lost there if dragged away.
- All snap traps were Victors.

10.2.3 Rodents of Interest

At times, the following species have been collected along remediated Silver Bow Creek. The count this year was 124 deer mice, 49 meadow voles, 6 masked shrews, 11 vagrant shrews, and 2 shrews not submitted for identification.

Table 10-2. Species trapped in the Streamside Tailings Operable Unit, 2014.

Species	Description
American deer mouse	*Peromyscus maniculatis* was the most prevalent capture in 2013. Probably in average years, but in 2014, vole captures outnumbered them almost 2:1. Very widely distributed with woodland and desert varieties. "Woodland forms climb well and are semi-arboreal." That's our guys; they can scamper several m up a willow quickly. Host to hantavirus.
Masked shrew	*Sorex cinereus* is less frequently encountered, so far, than *S. vagrans*. Very widely distributed across Canada and the northern states, including Alaska. Eats small invertebrates, insects, larvae, small mice, carrion, and in winter, some plants. Most common in moist habitats. A poor jumper.
Meadow vole	*Microtus pennsylvanicus* is widely distributed across Canada and the northern tier of states. Good swimmer and biter but not a climber. Makes runways in grass and often clips grass to reach seeds. Prolific and populations are cyclic; eruption this year.
Vagrant shrew	*Sorex vagrans*, the epithetic derivation is obvious; *L. vagus* = wandering, roaming. Found chiefly west of us (western Montana, Idaho, Oregon, Washington, and British Columbia). Distinguished from the masked shrew by a slightly longer tail and one feature of dentition. Active on the soil surface and using vole runways. Eats larvae, slugs, worms, spiders, etc. This species was more prevalent than the masked shrew in 2013 and 2014.
Water shrew	*Sorex palustris*, the epithetic derivation again is obvious; *L. palus* = a marsh or swamp. May construct middens along streambanks. Droppings are often full of remains of invertebrate exoskeletons. Found from south of Montana up through the Alaska panhandle and from Hudson Bay up through Great Slave Lake and beyond. Not trapped this year.

10.2.4 Data Analysis

Analysis is straightforward. Capture success is based on captures (trap nights minus failed traps). Failed traps are those tripped without capture, or a station is sometimes missed when setting traps. Capture success is stratified by small mammal species or trap type.

Species richness has so far been low. For example, no yellow-pine chipmunks, western jumping mice, or bushy-tailed woodrats have been captured; all were captured on the upper

Clark Fork in conjunction with remediation. There is little point in investigating species abundance relations.

10.3 RESULTS

Results are organized by the identified habitat types with secondary focus on species and type of trap.

10.3.1 Habitat Preferences

10.3.1.1 Woodland

Dense tall willows along the creek in Reach C show pronounced annual variations in small rodent use. In 2014, the overall capture rate was 46% compared to 24% this year consisting of 8% for shrews (high) and 17% for meadow voles. Considered another way, 37 voles and 4 shrews were caught in all trap types in 2014 compared to 15 voles and 7 shrews in 2015 (all vagrant shrews). I was again surprised by the lack of deer mice, which are facultatively arboreal and early colonizers of revegetation.

In Reach H, where this type has a more open canopy and a much more developed herbaceous layer [Figure 10-2], results are always disappointing because the habitat is both diverse and productive. As rodent habitat, it may be limited by wet soils with shallow standing water in places. No deer mice were sampled at either dense-tall-shrub site. The overall capture rate declined from 42% in 2014 to 10% this year with more shrews than voles (4 of 5 were vagrant shrews). For further temporal context, the overall capture rate here in 2013 was just two percent.

Figure 10-2. In 2013, this jungle at the Reach H-I boundary produced just two meadow voles in 85 trap-nights. In 2014, 35 meadow voles and one shrew (*Sorex vagrans*) were captured in the same number of trap-nights. In 2015, five masked shrews and four voles were caught; it was a good year for shrews.

10.3.1.2 Open Phase of Woodland

The open phase of woodland was not sampled, although part of the 100-m transect in Figure 10-2 could with equal justification be called open.

10.3.1.3 Alfalfa-steppe

A new transect of upland hydrology was sampled near the creek in Reach T [Figure 10-3], where most revegetation was initiated in 2014. This transect was fairly close to the creek and also near the haul road, across which is an expanse of intact, wet habitat that may provide a source of deer mice. A fair amount of exposed dirt was present, but there appeared to be no difference in capture rate relating to plant abundance. More captures did occur closer to intact habitat across the haul road. Reach T alfalfa-steppe was the most productive habitat in 2015 with an overall capture rate of 79% consisting of 73% deer mice and 6% voles, demonstrating that rapid colonization can occur when conditions are right.

Figure 10-3. Alfalfa-steppe where sampled in Reach T. Yellow flower is alfalfa. Creek is 10 m to right.

10.3.1.4 Meadow

The two sampled meadows are quite different. Reach C is a near monoculture of creeping meadow foxtail with a little redtop. Reach J is drier and more diverse but at least equally productive, and so thick that finding traps could be challenging [Figure 10-4; Figure 10-5]. Reach C had an overall capture rate of 23%, mostly voles with a few shrews. Voles could sometimes be seen here and nearby. In Reach J, the capture rate was low (14%) consisting of nine deer mice, one vole and one shrew. The dense, tall foliage was conducive to neither voles nor shrews but better deer mouse habitat than creeping meadow foxtail.

Figure 10-4. Meadow transect in Reach J from the origin.

Figure 10-5. Some places in Reach J meadow were too packed with plants to set traps, so tiny openings had to be found near the tape.

10.3.1.5 Alfalfa-shrub steppe

Alfalfa-shrub steppe in the form of rabbitbrush/alfalfa-grasses was sampled south of Sheep Gulch Pond in Reach G for the third time. It was seeded in spring 2006. The vegetation is mainly alfalfa with rubber rabbitbrush and sheep fescue subdominant, but visually, rabbitbrush dominates [Figure 10-6]. This transect is about 30 m from unremediated vegetation, so colonization is not limiting. It is also not far from Sheep Gulch Pond with its riparian fringe, a very different habitat. In 2013, I caught a single deer mouse in 94 trap nights for a capture rate of one percent. In 2014, the overall capture rate increased dramatically to 23%. At that time, captures were equally divided among deer mice and meadow voles with a single shrew (S. cinereus). This year, the overall capture rate was 14% consisting of 12% deer mice and 1% each masked shrews and voles.

Figure 10-6. Alfalfa-shrub steppe, Reach G.

10.3.1.6 Steppe

Steppe revegetation was sampled in Reach R (again), Reach S, and in a relict native plant community in Reach G [Figure 10-7], an upland between the remediated floodplain and both railroad lines. Reach R was classed kochia-steppe when first sample in 2013. At that time, the capture rate was 19%. The banner mouse year 2014 provided a 29% overall capture rate, all but two of them deer mice. This year, the overall capture rate was 19.5% with 15% of all captures deer mice. It seems that upland Reach R hasn't improved much as mouse habitat as perennial grasses replaced kochia. From a small-rodent perspective, steppe develops quickly and changes little, at least so far.

Reach S is mainly steppe with a bit of alfalfa-steppe at the transect origin [Figure 10-8]. Here the overall capture rate was 27% with deer mice accounting for 22%. The relict native steppe in Reach G had the lowest capture rate this year, 5% (all deer mice).

Figure 10-7. The relict steppe community is mainly western and thickspike wheatgrass with a bit of plains reedgrass and a few speckled false dandelion plants. Note the sgebrush at the terminus of this transect.

Figure 10-8. The Reach S transect appears alfalfa-steppe (here near the origin) but most of this transect has little alfalfa so it is classified steppe.

10.3.2 Trap Preferences

Trap results are presented on a percentage basis. Since they comprise three-quarters of all traps, snap mouse traps account for the majority of captures, but sometimes live traps rivaled them on a percentage basis.

10.3.2.1 Woodland

At the streamside habitat in Reach C, the capture rate for snap and live traps was equivalent for shrews but voles were three times more likely to be caught in snap traps than live traps. The pair of rat traps caught nothing. In Reach H, shrews again showed no preference for live or snap traps, on a percentage basis, but voles were caught only in snap traps.

10.3.2.2 Alfalfa-Steppe

All three trap types were very effective on deer mice, and even the rat trap that is triggered with difficulty by mice and voles captured one small mammal. As elsewhere, voles were caught only in snap traps.

10.3.2.3 Alfalfa-Shrub Steppe

Two deer mice were caught in live traps. The other 11 small mammals were captured by snap traps. The rat traps did not catch any small mammals in this habitat.

10.3.2.4 Meadow

In Reach C, 16 voles and three shrews were collected in snap traps, but one vole ventured into a live trap. Two rat traps were tripped, but nothing caught. The springing action is quite violent, and small mammals sometimes avert capture. We have never caught a packrat along Silver Bow Creek. At Reach J, snap traps accounted for all captures.

10.3.2.5 Steppe

In Reach R, the cumulative capture rate was 19.5% with snap and live traps equally effective for deer mice. With just four rat traps and one vole captured in one, the rat trap led the others in percentage of captures. Last year, a single deer-mouse was captured by a rat trap.

At Reach S, live traps were more effective than snap traps on a percentage basis. The voles fell to live traps. One masked shrew was caught in a live trap but died. Snap and live traps were about equally effective in harvesting deer mice at the steppe relict area, but only four deer mice were caught.

10.4 SUMMARY AND DISCUSSION

With abundant deer mice, two-year old alfalfa-steppe revegetation in Reach T provided a capture rate exceeding 70%, eclipsing the next highest rate (about 20%) in Reach S steppe. Relict steppe in Reach G, which is relatively pristine, had the lowest overall capture rate (5%). Capture rates in all sampled habitats are compared in Figure 10-9.

In 2013, I posed the question, "Is SSTOU revegetation poor small-mammal habitat? Or are populations depressed in 2013?" It now appears that populations were at something of a nadir in 2013. In the second year of sampling, increases from the previous year were huge. Some capture rates approached 50 in 2014, whereas some approached 0 in 2013.

Overall capture rates for three years in three plant communities, each representing a different habitat, are compared in Figure 10-10. In the first year of sampling (2013) woodland and shrub-steppe habitats had depressed populations (it now appears). All populations increased in 2014, a banner year for voles, but especially the woodland habitat, which has moist to wet soil. In 2015, captures reduced in woodland and shrub-steppe, but remained considerably above the 2013 level. In Reach R steppe, captures in 2015 were equal to 2013.

So far, we have seen pronounced temporal trends, but it is clear that the most physiognomically developed habitats are not necessarily the most used ones, and that fresh habitat (new revegetation) can be both quickly colonized and heavily used (alfalfa steppe).

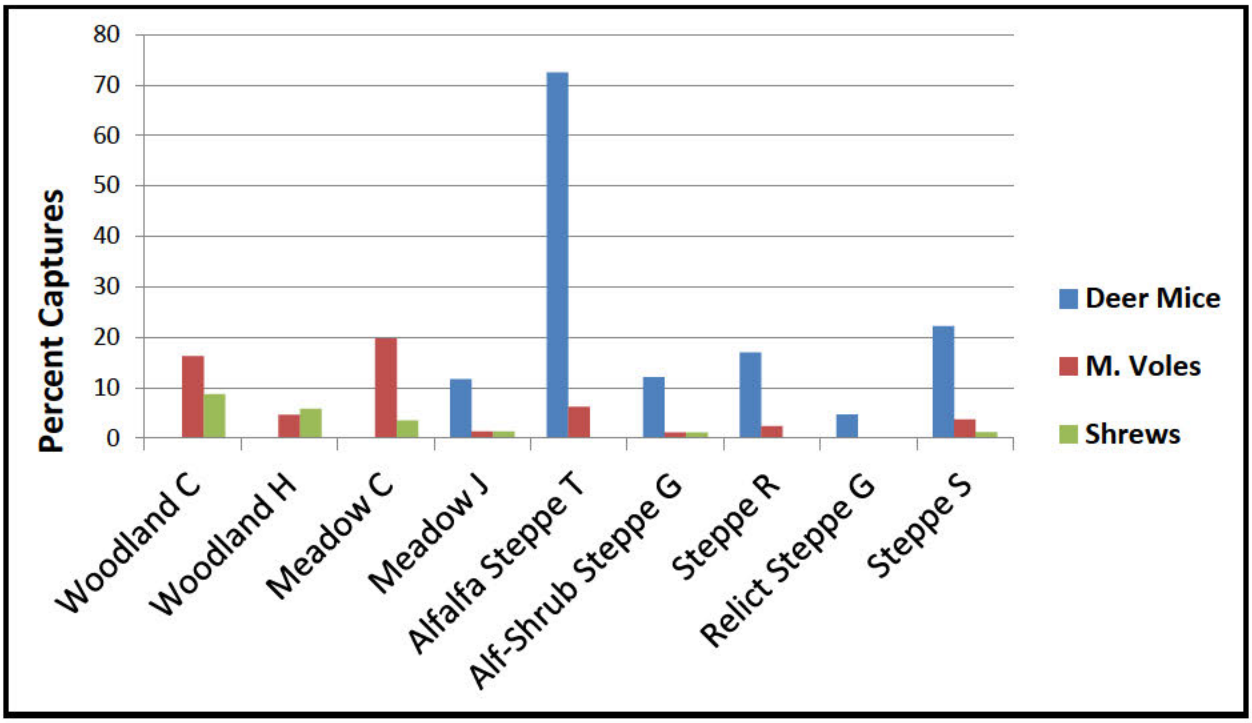

Figure 10-9. Small mammal habitat preferences, 2015.

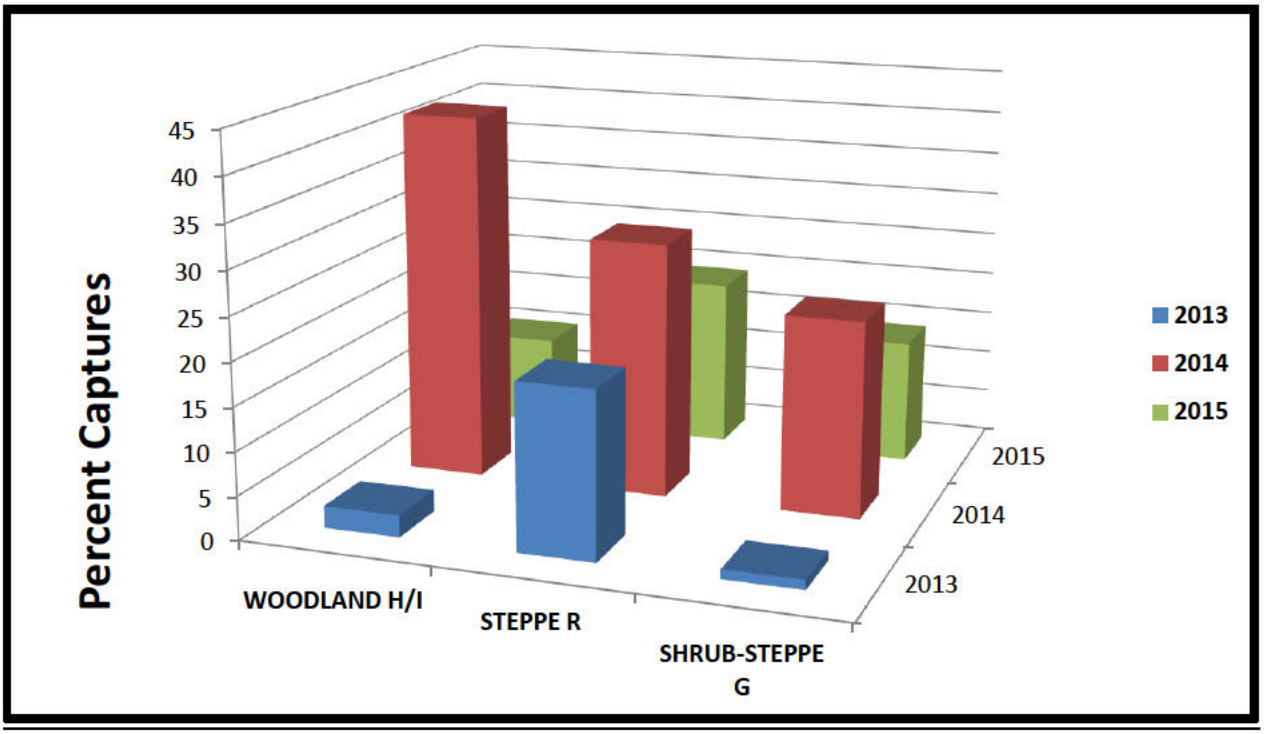

Figure 10-10. Temporal dynamics for total captures in three habitat types.

11.0 CONCLUSIONS

This chapter concludes the 2015 monitoring report and provides an evaluation of monitored conditions in relation to performance standards specified in the SSTOU ROD [MDEQ and USEPA, 1995]. Numeric performance standards are specified in the ROD for surface water and groundwater COC concentrations [MDEQ and USEPA, 1995] and therefore this chapter focuses on those media. While more stringent standards promulgated since the issuance of the ROD have not yet been formally adopted as performance standards for this operable unit, this monitoring report uses the more stringent of the ROD's Circular WQB-7 [MDHES, 1994] standards or current Circular DEQ-7 [MDEQ, 2012a] standards as the goal to be attained for purposes of evaluation.

For surface water and groundwater, sample concentrations from this monitoring year are compared to performance goals at each SSTOU monitoring site. Surface water sites outside the SSTOU (SS-01, SS-05A, SS-06G, and SS-15G; Figure 1-2) are not included. A summary of performance goal exceedances is provided in Table 11-1 (surface water), Table 11-2 (groundwater in the vicinity of the Mine Waste Relocation Repository), and Table 11-3 (groundwater in the SSTOU floodplain). In addition, this chapter provides a brief comparison of COC concentrations between surface water sites and in groundwater clusters to identify potential remaining COC source areas within the SSTOU.

The remedial actions in the SSTOU are largely complete although some final pass repair work remains to be completed in Subareas 1 and 2. These data will guide managers in identifying progress or problems in the recovery of the operable unit following implementation of the remedial actions.

Table 11-1. Attainment of surface water performance goals for contaminants of concern at sampling sites in the Streamside Tailings Operable Unit (SSTOU), 2015. Sites within the watershed but outside the SSTOU are not included.

Site ID	Site Location	Contaminant of Concern[41]					
		As	Cd	Cu	Pb	Hg	Zn
SS-07	Silver Bow Creek below WWTP						
SS-08	Silver Bow Creek at Rocker						
SS-10A	Silver Bow Creek above Sand Creek						
SS-10B	Silver Bow Creek below Sand Creek						
SS-11C	Silver Bow Creek above Browns Gulch						
SS-11D	Silver Bow Creek below Browns Gulch						
SS-13	Silver Bow Creek in Reach L						
SS-14	Silver Bow Creek at Miles Crossing						
SS-15A	Silver Bow Creek above German Gulch						
SS-15B	Silver Bow Creek below German Gulch						
SS-16	Silver Bow Creek in Reach P near Fairmont						
SS-17D	Silver Bow Creek below Stewart Street at Opportunity						
SS-19	Silver Bow Creek at Frontage Road						

Attainment of performance goal during all quarterly monitoring periods.

Failure to attain the performance goal during one to three quarterly monitoring periods.

Failure to attain the performance goal during all quarterly monitoring periods.

Table 11-2. Attainment of groundwater performance goals for contaminants of concern in monitoring wells of the Mine Waste Relocation Repository in the Streamside Tailings Operable Unit, 2014.

Site	Arsenic	Cadmium	Copper	Lead	Mercury	Zinc
1GW-1056						
LYP-07						
MW-2B						
MW-2C						
MW-2D						

Attainment of performance goal during both monitoring periods.

Failure to attain the performance goal during one monitoring period.

Failure to attain the performance goal during both monitoring periods.

[41]Abbreviations: As = arsenic, Cd = cadmium, Cu = copper, Pb = lead, Hg = mercury, and Zn = zinc.

Table 11-3. Attainment of groundwater performance goals for contaminants of concern in floodplain monitoring wells located along Silver Bow Creek in the Streamside Tailings Operable Unit, September 2014.

Cluster	Arsenic	Cadmium	Copper	Lead	Mercury	Zinc
Colorado Tailings						
Rocker						
Nissler						
Silver Bow						
Miles Crossing						
Fairmont						
Crackerville						
Stuart						
Frontage Road						

Attainment of performance goal.

Failure to attain the performance goal in one monitoring well sample.

Failure to attain the performance goal in both monitoring well samples.

11.1 SUBAREA 1

Surface water sites in Subarea 1 include sites SS-07, SS-08, and SS-10A [Figure 1-2]. Groundwater monitoring clusters in Subarea 1 include the Colorado Tailings, Rocker, and Nissler clusters [Figure 3-1]. Remediation in Subarea 1 was completed between 1999-2003.

In 2015, surface water COC concentrations generally increased throughout Subarea 1, particularly cadmium, copper, and zinc (in both the dissolved and total recoverable forms). Additional remedial actions are planned in Subarea 1 to address some of the remaining COC sources in the floodplain.

In groundwater monitoring wells of Subarea 1, zinc concentrations have consistently exceeded the performance goal (by as much as five times) and cadmium concentrations have also occasionally exceeded the performance goal. Copper concentrations have not exceeded the performance goal during the period of record in these wells but have regularly been elevated in monitoring wells compared to the background wells.

11.1.1 Surface Water

11.1.1.1 Silver Bow Creek below WWTP (SS-07)

Site SS-07 is located at the upstream end of Subarea 1, immediately downstream from the Butte WWTP outfall. Site SS-07 is the upstream-most site in the SSTOU. Remediation was completed at SS-07 in 2000. In addition to representing conditions at the upstream-most portion of the SSTOU, site SS-07 provides an assessment of the influence of the WWTP on water chemistry and biological integrity in Silver Bow Creek. Site SS-07 is paired with site SS-06G, located immediately upstream from the WWTP, with SS-06G providing the "control" site and

SS-07 providing the "impact" site for the WWTP outfall. Site SS-07 is co-located with USGS gauge 12323250.

In 2015, no COCs exceeded performance goals at SS-07.

11.1.1.2 Silver Bow Creek at Rocker (SS-08)

Site SS-08 is located in Subarea 1 near the town of Rocker, approximately two miles downstream from site SS-07. Site SS-08 was remediated in 2002. No tributaries enter Silver Bow Creek between SS-07 and SS-08. Therefore, any differences in streamflow (not due to measurement error) between SS-07 and SS-08 would likely be attributed to exchange between groundwater and surface water in this reach.

In 2015, copper, lead, and mercury exceeded the performance goals at SS-08. COC exceedances of the performance goals occurred for copper in three quarters and for lead and mercury in one quarter (Q4). Commonly, cadmium, copper, lead, and zinc concentrations were 1.5 to 2 times higher at SS-08 compared to SS-07, indicating that substantial loading or mobilization of those contaminants occurs between those sites.

11.1.1.3 Silver Bow Creek above Sand Creek (SS-10A)

Site SS-10A is located at the downstream end of Subarea 1, immediately upstream from the Sand Creek confluence, approximately 3 miles downstream from site SS-08. Remediation at site SS-10A was completed in 2003. In addition to representing conditions at the downstream end of Subarea 1, site SS-10A provides an assessment of the influence of Sand Creek on water chemistry and biological integrity in Silver Bow Creek. Site SS-10A is paired with site SS-10B, located immediately downstream from the Sand Creek confluence, with SS-10A providing the "control" site and SS-10B providing the "impact" site for the Sand Creek input.

In 2015, cadmium, copper, lead, and mercury exceeded the performance goals at SS-10A. COC exceedances of the performance goals occurred for copper in three quarters (all but Q3), and for cadmium, lead, and mercury in in one quarter (Q4). Generally in 2015, COC concentrations were about 1.0-2.0 times higher at SS-10A compared to SS-08.

11.1.2 Groundwater

11.1.2.1 Colorado Tailings Cluster

The Colorado Tailings cluster is located approximately one mile downstream from the upstream end of Subarea 1 between surface water sites SS-07 and SS-08. There was no evidence that mean streamflow differed between sites SS-07 and SS-08 among measurements taken on the same day (typically within 2 hours; $n = 23$) from 2010-2015 (p-value from two-sided paired t-test = 0.177). Mean streamflow at each site from 2010-2015 was 30.3 cubic feet per second (cfs; SS-07) and 31.3 cfs (SS-08). Based on these data, groundwater in this reach does not appear to contribute appreciably to surface water streamflow and there are no surface water inputs to Silver Bow Creek in this reach.

In 2015, no COCs exceeded performance goals in groundwater samples in the Colorado Tailings cluster. However, some COC concentrations were elevated in monitoring wells compared to the background well: cadmium, copper, and zinc by approximately two orders of magnitude; lead and mercury by approximately one order of magnitude. Despite historically elevated COC concentrations in the floodplain of Silver Bow Creek between SS-07 and SS-08, groundwater may not be the primary cause of increasing surface water COC concentrations between these sites given that it appears minimal groundwater enters Silver Bow Creek in this portion of Subarea 1.

11.1.2.2 Rocker Cluster

The Rocker cluster is located approximately 0.5 miles downstream from surface water site SS-08, and approximately 2 miles upstream from surface water site SS-10A. There was no evidence that mean streamflow differed between sites SS-08 and SS-10A among measurements taken on the same day (typically within 2 hours; $n = 16$) from 2010-2015 (p-value from two-sided paired t-test = 0.802). Mean streamflow at each site from 2010-2015 was 31.3 cfs (SS-08) and 29.8 cfs (SS-10A). Based on these data, groundwater in this reach does not appear to contribute appreciably to surface water streamflow and there are no major surface water inputs to Silver Bow Creek in this reach.

In 2015, zinc exceeded the performance goal in one of two monitoring samples in the Rocker cluster. Several COC concentrations were elevated in monitoring wells compared to the background well: cadmium, copper, and zinc by approximately two orders of magnitude. Despite historically elevated COC concentrations in the floodplain of Silver Bow Creek between SS-08 and SS-10a, groundwater may not be the primary cause of increasing surface water COC concentrations between these sites given that it appears little or no groundwater enters Silver Bow Creek in this portion of Subarea 1.

11.1.2.3 Nissler Cluster

The Nissler cluster is located approximately 1.5 miles downstream from the Rocker cluster, and also between surface water sites SS-08 and SS-10A.

In 2015, cadmium (in one monitoring well) and zinc (in both monitoring wells) each exceeded performance goals in the Nissler cluster. Cadmium, copper, lead, and zinc concentrations in monitoring wells were elevated relative to the background concentrations; cadmium and lead by approximately two orders of magnitude and zinc by nearly three orders of magnitude. Despite historically elevated COC concentrations in this portion of the floodplain of Silver Bow Creek between SS-08 and SS-10a, groundwater may not be the primary cause of increasing surface water COC concentrations between these sites given that it appears little or no groundwater enters Silver Bow Creek in this portion of Subarea 1.

11.2 SUBAREA 2

Subarea 2 includes sites SS-10B, SS-11C, SS-11D, SS-13, and SS-14 [Figure 1-2]. Remediation in Subarea 1 was completed between 2004-2010. In 2015, surface water COC concentrations tended to level off in Subarea 2 in general and appeared to decline slightly from the upstream-most Subarea 2 site (Silver Bow Creek below Sand Creek) to the downstream-most site (Silver Bow Creek at Miles Crossing) during all quarters except Q4. In Q4, several COCs tended to increase markedly between particular sites in Subarea 2 as was observed in 2014. As with Subarea 1, some additional remedial actions are planned in Subarea 2 in the 2016 construction season to address some remaining COC sources in the floodplain.

In four Subarea 2 floodplain groundwater monitoring wells, arsenic and cadmium concentrations were above the local background concentration in one well and zinc concentrations in both wells of one cluster (Miles Crossing) were above performance goal by as much as four times.

11.2.1 Surface Water

11.2.1.1 Silver Bow Creek below Sand Creek (SS-10B)

Site SS-10B is located at the upstream end of Subarea 2, immediately downstream from the Sand Creek confluence, and approximately 200 yards downstream from site SS-10A. This reach of Silver Bow Creek was remediated in 2003. In addition to representing conditions at the upstream end of Subarea 2, site SS-10B provides an assessment of the influence of Sand Creek on water chemistry and biological integrity in Silver Bow Creek. Site SS-10B is paired with site SS-10A, which is located immediately upstream from the Sand Creek confluence. SS-10A provides the “control” site, while SS-10B provides the “impact” site for the Sand Creek input. Surface water COC concentrations were similar between SS-10A and SS-10B in 2014, indicating that Sand Creek is not a major source of COCs to surface water in the SSTOU.

11.2.1.2 Silver Bow Creek above Browns Gulch (SS-11C)

Site SS-11C is located in Subarea 2, immediately upstream from the Browns Gulch confluence, and approximately 2.5 miles downstream from site SS-10B. Site SS-11C was remediated in 2006. Site SS-11C provides an assessment of the influence of Browns Gulch on water chemistry and biological integrity in Silver Bow Creek. Site SS-11C is paired with site SS-11D, which is located immediately downstream from the Browns Gulch confluence. SS-11C provides the “control” site, and SS-11D provides the “impact” site for the Browns Gulch input. Between sites SS-10B and SS-11C cadmium and zinc tended to increase by approximately 50% in the first, second and third quarters. In the fourth quarter however, cadmium, lead, and mercury decreased markedly (approximately 50%) between those sites.

11.2.1.3 Silver Bow Creek below Browns Gulch (SS-11D)

Site SS-11D is located in Subarea 2, immediately downstream from the Browns Gulch confluence, approximately 200 yards downstream from site SS-11C. Site SS-11D was remediated in 2007. Site SS-11D provides an assessment of the influence of Browns Gulch on water chemistry and biological integrity in Silver Bow Creek. Site SS-11D is paired with site SS-11C (which is located immediately upstream from the Browns Gulch confluence), with SS-11C providing the "control" site and SS-11D providing the "impact" site for the Browns Gulch input. Generally, COC concentrations were similar between SS-11C and SS-11D but there was variability; during some quarters certain COC concentrations were higher at the upstream site but during other quarters that same COC concentration was higher at the downstream site.

11.2.1.4 Silver Bow Creek in Reach L (SS-13)

Site SS-13 is located in Subarea 2, downstream from the Browns Gulch confluence, approximately 0.75 miles downstream from site SS-11D. Site SS-13 was remediated in 2007, but this site was not sampled until 2013. During Q1, Q2, and Q3, all COC concentrations (except zinc) were similar between site SS-11D and SS-13. From Q1-Q3, zinc concentrations increased by approximately 50% between those sites. In Q4 several COCs, cadmium, lead, and mercury increased substantially between those sites.

11.2.1.5 Silver Bow Creek at Miles Crossing (SS-14)

Site SS-14 is located near the downstream end of Subarea 2. Remediation was completed at SS-14 in 2008. Site SS-14 is located in the Miles Crossing area approximately 1 mile downstream from site SS-13. As with SS-13, COC concentrations were similar between SS-13 and SS-14 during all quarters.

11.2.2 Groundwater

11.2.2.1 Silver Bow Cluster

The Silver Bow cluster is located at the boundary between Subarea 1 and Subarea 2, close to the surface water site SS-10B. Surface water site SS-10B is located approximately 3 miles upstream from site SS-11C. There was convincing evidence that mean streamflow differed between sites SS-10B and SS-11C among measurements taken on the same day (typically within 2 hours; n = 19) from 2010-2015 (p-value from two-sided paired t-test <0.0001). Mean streamflow at each site from 2010-2015 was 29.3 cfs (SS-10B) and 33.2 cfs (SS-11C). There are multiple ponds adjacent to Silver Bow Creek that discharge into Silver Bow Creek. Those ponds, in addition to possible direct groundwater inputs, are likely responsible for the increase in streamflows (on average 7.5%) between SS-10B and SS-11C.

In 2015, arsenic exceeded the performance goal in one of two monitoring wells in the Silver Bow cluster. Arsenic and cadmium were slightly elevated in at least one monitoring well relative to the background concentration.

11.2.2.2 Miles Crossing Cluster

The Miles Crossing cluster is located at the boundary between Subarea 2 and Subarea 3, close to the surface water site SS-14. Surface water site SS-15A is located approximately 5 miles downstream from SS-14. There was evidence that mean streamflow differed between sites SS-14 and SS-15A among measurements taken on the same day (typically within 2 hours; $n = 22$) from 2010-2015 (p-value from two-sided paired t-test = 0.038). Mean streamflow at each site from 2010-2015 was 45.8 cfs (SS-14) and 43.3 cfs (SS-15A) indicating that this is a losing (5%) reach for surface water streamflows.

In 2015, cadmium and zinc exceeded the performance goal in both monitoring wells located in the Miles Crossing cluster and concentrations were nearly four orders of magnitude above the concentrations in the background well.

11.3 SUBAREA 3

Subarea 3 includes sites SS-15A and SS-15B [Figure 1-2]. Remediation in Subarea 3 occurred from 2011 to 2015. Prior to 2014 monitoring, surface water COC concentrations tended to be the highest in the SSTOU at these Subarea 3 sites (particularly SS-15A). However, in 2014 and 2015, COC concentrations at these sites were generally similar to, or even slightly less than, those in Subarea 2. These results indicate that the recent remedial actions in Subarea 3 upstream from these sites were largely successful at reducing surface water COC concentrations and variability.

11.3.1 Surface Water

11.3.1.1 Silver Bow Creek above German Gulch (SS-15A)

Site SS-15A is located in Subarea 3, immediately upstream from the German Gulch confluence and approximately 3.5 miles downstream from site SS-14. Remediation was completed in Subarea 3 upstream from Site SS-15A in 2014. However, the stream channel and floodplain in the immediate vicinity of SS-15A (up to 100 yards upstream) was not actively remediated. The remediation plan in this vicinity is for natural attenuation of streamside tailings. No active remediation occurred because the stream passes through a very narrow canyon (~30 m) and the streambed is comprised primarily of bedrock indicating that the volume of tailings is quite small.

Site SS-15A provides an assessment of the influence of German Gulch on water chemistry and biological integrity in Silver Bow Creek. Site SS-15A is paired with site SS-15B, located immediately downstream from the German Gulch confluence, with SS-15A providing the "control" site and SS-15B provides the "impact" site for the German Gulch input. The COC concentrations were similar at SS-14 and SS-15A during all quarters in 2015.

11.3.1.2 Silver Bow Creek below German Gulch (SS-15B)

Site SS-15B is located in Subarea 3, immediately downstream from the German Gulch confluence and approximately 200 yards downstream from site SS-15A. As with site SS-15A, site SS-15B was not remediated in the immediate vicinity due to low tailings volume in this reach and poor access. The remediation plan for this short reach (~300 yards; from SS-15B to 100 yards upstream from SS-15A) is for natural attenuation. SS-15B provides an assessment of the influence of German Gulch on water chemistry and biological integrity in Silver Bow Creek. Site SS-15B is paired with site SS-15A which is located immediately upstream from the German Gulch confluence. SS-15A provides the "control" site and SS-15B provides the "impact" site for the German Gulch input. Typically, COC concentrations at SS-15B were lower (typically by about 33%) than at SS-15A. These results are consistent with past results and reflect dilution from the relatively clean German Gulch tributary.

11.3.2 Groundwater

There were no groundwater monitoring wells located in Subarea 3 in 2015. The Miles Crossing cluster is located in Subarea 2 near the boundary with Subarea 3 and the Fairmont cluster is located in Subarea 4 near the boundary with Subarea 3.

11.4 SUBAREA 4

Subarea 4 includes sites SS-16B, SS-17D, and SS-19 [Figure 1-2]. Remediation in this subarea occurred from 2004-2014. Generally, COC concentrations have continued a steady, modest decline at the Subarea 4 sites during the last 5 years. However, remediation was in progress in Subarea 3 upstream from Subarea 4 through 2015. A temporary sedimentation pond, used to sequester metals and sediments entrained from removal activities upstream, was removed in 2014. That pond had previously provided a buffer to water quality in Subarea 4.

11.4.1 Surface Water

11.4.1.1 Silver Bow Creek in Reach P near Fairmont (SS-16B)

Site SS-16B is located at the upstream end of Subarea 4. As of 2013, remediation was completed at site SS-16B. Site SS-16B is located approximately 2 miles downstream from site SS-15B. A sedimentation pond was removed and a fish movement barrier was installed between SS-15B and SS-16B in 2014. Site SS-16B was first sampled in this monitoring program in 2013. In 2015, COC concentrations were generally similar between SS-15B and SS-16B with the exception of cadmium, which tended to increase between those sites.

11.4.1.2 Silver Bow Creek below Stewart Street at Opportunity (SS-17D)

Site SS-17D is located in Subarea 4, approximately 6.9 miles downstream from site SS-16B and approximately 1.5 miles upstream from the point where Silver Bow Creek discharges into the Warm Springs Pond system. Site SS-17D is co-located with USGS gauge 12323600. Floodplain remediation was complete at SS-17D in 2013. Generally all COC concentrations were similar between SS-16B and SS-17D except for cadmium and zinc which tended to increase slightly between those sites.

11.4.1.3 Silver Bow Creek at Frontage Road (SS-19)

Site SS-19 is located in Subarea 4, approximately 1.2 miles downstream from SS-17D, and 0.2 miles upstream from the point where Silver Bow Creek discharges into the Warm Springs Pond system. Site SS-19 is the downstream-most site in the SSTOU monitoring network, and also provides an assessment of water quality in Silver Bow Creek at the downstream end of Subarea 4. Sampling at SS-19 was initiated in 2014. All COC concentrations were similar between SS-17D and SS-19 suggesting that there were no major remaining sources of surface water COCs to the stream between those sites.

11.4.2 Groundwater

11.4.2.1 Fairmont Cluster

The Fairmont cluster is located at the upstream end of Subarea 4, between surface water sites SS-15B and SS-16B. Surface water site SS-15B is located approximately 2 miles upstream from SS-16B. Sampling at SS-16B began in 2013. There was no evidence that mean streamflow differed between sites SS-15B and SS-16B among measurements taken on the same day (typically within 2 hours; $n = 10$) from 2013-2015 (p-value from two-sided paired t-test = 0.919). Mean streamflow at each site from 2013-2015 was 57.8 cfs (SS-15B) and 58.0 cfs (SS-16B) indicating that there is little or no groundwater entering Silver Bow Creek in this portion of Subarea 3.

In 2015, all COC concentrations in Fairmont cluster monitoring wells were below the performance goals and monitoring well COC concentrations appeared to be similar to background concentrations.

11.4.2.2 Crackerville Cluster

The Crackerville cluster is located between surface water site SS-16B and SS-17D, approximately 0.5 miles downstream from SS-16B. There was no evidence that mean streamflow differed between sites SS-16B and SS-17D among measurements taken on the same day (typically within 2 hours; $n = 10$) from 2013-2015 (p-value from two-sided paired t-test = 0.378). Mean streamflow at each site from 2013-2015 was 58.0 cfs (SS-15B) and 59.4 cfs (SS-17D) indicating that there is little groundwater entering Silver Bow Creek in this portion of Subarea 4; there are no surface water inputs between these surface water sample sites.

In 2015, one monitoring well had a cadmium concentration which exceeded the performance goal but otherwise COC concentrations in monitoring wells were similar to the concentrations in the background well.

11.4.2.3 Stuart Cluster

The Stuart cluster is located between surface water site SS-16B and SS-17D, approximately 1 mile upstream from SS-17D. There is no evidence that streamflows differ between those sites.

In 2015, both monitoring wells had cadmium and zinc concentrations which exceeded the performance goals and copper also exceeded the performance goal in one well.

11.4.2.4 Frontage Road Cluster

The Frontage Road cluster is located between surface water sites SS-17D and SS-19 (very close to SS-19), at the downstream end of Subarea 4. Sampling began at SS-19 in 2014. There was no evidence that mean streamflow differed between sites SS-17D and SS-19 among measurements taken on the same day (typically within 2 hours; $n = 7$) from 2014-2015 (p-value from two-sided paired t-test = 0.453). Mean streamflow at each site from 2014-2015 was 60.7 cfs (SS-17D) and 64.8 cfs (SS-19). There are no surface water inputs between these surface water sample sites.

In 2015, no monitoring wells located in the Frontage Road cluster had a COC concentration exceeding the performance goal and all COC concentrations in the monitoring wells were similar to those in the background well.

12.0 REFERENCES

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APPENDIX A

QUALITY ASSURANCE AND QUALITY CONTROL REVIEW AND SUMMARY: SURFACE WATER, INSTREAM SEDIMENT, GROUNDWATER, AND VADOSE ZONE WATER

APPENDIX A
QUALITY ASSURANCE AND QUALITY CONTROL REVIEW AND SUMMARY: SURFACE WATER, INSTREAM SEDIMENT, GROUNDWATER, AND VADOSE ZONE WATER

A.1 INTRODUCTION

Specific quality assurance and quality control (QA/QC) requirements for field measurements, sample collection, laboratory analysis, and the reporting of resulting data were established by protocols contained in the quality assurance project plan (QAPP), a component of the approved sampling and analysis plan (SAP) for the Silver Bow Creek Streamside Tailings Operable Unit (SSTOU). The following quality control checklist is a component of the Montana Department of Environmental Quality QA/QC protocols, and is an initial step in the review and validation of water chemistry and related data generated under the SSTOU environmental monitoring program. This checklist provides an outline for reviewing and assessing numerous factors potentially affecting data quality, and assists in identifying data that may be invalid or require additional documentation.

A.2 QUALITY CONTROL CHECKLIST

_+_ Condition of samples upon receipt

_-_ Sample temperature

- All sediment samples were received at the lab with temperatures >8 C.
- Surface water samples in one (of four) coolers in Q4 were warmer (8.5 C) than the range specified (4 ± 2 C) in the project SAP.

_+_ Proper collection containers

_+_ Sample containers intact

_-_ Sample pH of acidified samples < 2

- Dissolved metal samples for groundwater and vadose zone water were not field filtered or acidified in the field. These samples were filtered and preserved upon receipt at the laboratory.

_+_ All field documentation complete; if incomplete areas cannot be completed, document the issue

_+_ Holding times met

_-_ Field duplicates collected at the proper frequency (specified in the project SAP)

- Field duplicates for surface water were collected at a frequency of 12% (two field duplicate samples per quarterly event).
- Field duplicates for instream sediment were collected at a frequency of 9% (two field duplicate samples per quarterly event except in Q4 when only one duplicate was

collected). In Q4, only ten field samples were collected (rather than 17 during other quarters), due to ice formation at some sites.

- Field duplicates of groundwater and vadose zone water samples were collected at a frequency of 7% during both quarters which is less than the project goal of at least 10%.

_-_ Field blanks collected at the proper frequency (specified in the project SAP)

- Field blanks of surface water and instream sediment samples were collected at a frequency of 12% (two field blank samples per quarterly event).
- Field blanks of groundwater and vadose zone water samples were collected at a frequency of 7% during both quarters which is less than the project goal of at least 10%.

_+_ All sample IDs matched those provided in the SAP. Field duplicates were clearly marked on samples and noted as such in the laboratory results.

- All sample ID discrepancies identified by the laboratory at the time of sample delivery to the lab were brought to the attention of the responsible RESPEC field personnel and discrepancies were fully resolved; all instances were documented in the laboratory analytical reports.

_+_ Analyses were carried out as described within the SAP (e.g. analytical methods, photo documentation, field protocols)

- Due to sample volume limitations, groundwater and vadose zone samples for dissolved metals from Q2 (16 samples) and Q3 (47 samples) were lab filtered rather than field filtered and were acidified after submission to the laboratory. The discrepancy between the SAP-specified method and the method actually followed was noted in the field form, analysis request and COC forms, and the laboratory analytical reports.

_+_ Reporting limit complied with the SAP requested reporting limit

- The reporting limit (RL) for a specific sample analyte occasionally had to be increased by the laboratory due to chemical interference of the sample matrix. These instances are "D-flagged" in the analytical summary reports provided by Energy Laboratories (Appendix B), and will be similarly flagged in the data submitted to the EQUIS database.

_-_ All analyte field blank concentrations were less than the SAP-specified reporting limits with the following exceptions:

- In Q1 surface water samples, volatile suspended sediment concentration was 1 mg/L (RL = 1 mg/L) in the field blank collected on March 26, 2015.
- In Q2 surface water samples, dissolved zinc concentration was 0.009 (RL = 0.008 mg/L) in the field blank collected on May 14, 2015.
- In Q3 surface water samples, dissolved zinc concentration was 0.009 mg/L on September 8, 2015 and 0.010 mg/L on September 9, 2015 (RL = 0.008 mg/L).
- In Q4 surface water samples, dissolved manganese concentration was 0.002 mg/L (RL = 0.001 mg/L) in the field blank collected on December 3, 2015 and dissolved zinc

concentration was 0.015 mg/L (RL = 0.008 mg/L) in the field blank collected on December 4, 2015.

+ If any field blanks exceeded the SAP requested reporting limit, associated data may be qualified, or "B-flagged", in the project database. The MDEQ project manager will set the criteria for determining what data is associated and will be contacted to discuss field blank results prior to flagging data. The project precedent to date has been to flag any results less than ten times the blank value from a day in which the blank had a concentration above the RL. Following this precedent, the following samples would be B-flagged:
  - All volatile suspended sediment samples on March 26, 2015 with concentrations <10 mg/L.
  - All dissolved zinc samples on May 14, September 9, and December 3-4, 2015, with concentrations <0.08 mg/L.
  - All dissolved manganese samples on December 3, 2015 with concentrations <0.01 mg/L.

+ Laboratory blanks, duplicates, matrix spikes, and control samples were analyzed at a 10% frequency

+ Laboratory blanks, duplicates, matrix spikes, and control samples were all within the required control limits defined within the SAP

+ Project DQOs and DQIs were met (as described in SAP)

+ Summary of QC analysis results, issues encountered and corrective actions was completed

A.3 SUMMARY OF QUALITY CONTROL AND ANALYSIS RESULTS

Summarized in this appendix are quality control measures performed on field and laboratory data generated from surface water, instream sediment, groundwater, and vadose zone water samples collected from the SSTOU during four quarterly monitoring events in 2015. Assessed under the MDEQ standard quality assurance and quality control protocols are data quality objectives (DQOs), including categories for: "representativeness", "comparability", and "completeness". Also assessed under the MDEQ standard quality assurance and quality control protocols are data quality indicators (DQIs) including categories for: "sensitivity", "lab precision", "overall precision", and "bias and accuracy".

Overall, DQOs and DQIs were met at all monitoring sites in the SSTOU during 2015. Surface water samples were collected and analyzed for total suspended sediment, nutrients, metals (dissolved and total recoverable), and common ions at 17 sample sites on four occasions (quarterly) in 2015. Instream sediment samples were collected and analyzed for metals (total) at the 17 surface water sites during each quarter of 2015. Groundwater and vadose zone water samples were collected from monitoring wells and lysimeters during Q2 and Q3 and these samples were analyzed for dissolved metals and common ion concentrations.

A.3.1 Representativeness

All surface water, instream sediment, vadose zone water, and groundwater monitoring sites in the SSTOU sampled in 2015 met stated objectives for "spatial representativeness". That is, all monitoring sites were sampled at the established locations specified in the project SAP.

All surface water and instream sediment monitoring was conducted quarterly during 2015 as specified in the project SAP. Q1 monitoring occurred during base streamflow conditions prior to the onset of spring runoff. Q2 monitoring was conducted near the peak annual streamflow the during spring snowmelt runoff period. Biological monitoring was conducted in conjunction with Q3 surface water and instream sediment sampling, during low streamflows near the seasonal minimum within the specified index period for sampling the biota. Q4 monitoring occurred during base streamflow conditions as late in the season as possible, prior to winter ice up. Sampling activities during 2015 occurred within the last two weeks of the last month of each respective quarter, and all data met specified SSTOU criteria for temporal representativeness.

A.3.2 Comparability

Comparability is the applicability of project data to the remedial performance goals specified in the SAP for the various environmental media monitored under the project. The performance goal for surface water quality is for all contaminants of concern (COC) to meet the most restrictive of the state water quality standards for surface water (see Section 1.0). For instream sediment, the goal is for COC concentrations to meet the "threshold effect concentration" (TEC) (see Section 2.0). Performance goals for groundwater call for COC concentrations to meet state water quality standards, federal maximum contaminant levels (MCLs), and federal non-zero MCL goals through natural attenuation. All of these standards and levels apply to human health considerations. In addition, these goals require that no groundwater discharges occur that would prevent attainment of ambient Circular DEQ-7 surface water standards or instream sediment remediation goals in the SSTOU. All data acquired by the 2015 monitoring are applicable to assessing attainment of project performance goals.

A.3.3 Completeness

An overall data completeness goal of 85% was specified for the SSTOU project in 2015, and an evaluation table for data completeness is not required if the goal is met or exceeded. Data completeness for surface water and instream sediment samples from the 17 SSTOU monitoring sites was near 100%, with all chemical and physical parameters collected and analyzed during each of the four quarterly monitoring events in 2015. Water samples were collected and analyzed from all SAP-specified groundwater monitoring wells and vadose zone lysimeters during the Q2 and Q3, although the available volume of water was often limited for vadose zone water samples.

A.3.4 Sensitivity

The method detection limit (MDL) established by Energy Laboratories through laboratory blank analyses is an expression of sensitivity. The MDL documented in QA/QC summary reports that accompany each set of laboratory analytical reports was less than the project-required reporting limit (RL), and was often below detection, for all analytical methods pertaining to SBC SSTOU monitoring (Appendix B).

Sensitivity of field methods for surface water samples was determined through deionized water field blank analyses. For surface water samples, field blanks were collected at a 12% proportion to regular samples during each quarterly monitoring event in 2015. Results for all metals, common ions and suspended sediment parameters in field blanks [Table A1 through Table A4] were below detection (ND) at the respective reporting limits with some exceptions as described in Section A.1. Some of those data will be qualified as also described in Section A.1. For groundwater samples, field blanks were collected at a 7% proportion to regular samples during the two sample periods. Results for all metals and common ion analytes in groundwater field blanks [Table A5 and Table A6] were below detection at the respective reporting limits with the exception of dissolved zinc in Q3. Some associated data will be subsequently qualified as described in Section A.1.

A.3.5 Precision

A.3.5.1 Laboratory

Laboratory precision was assessed by the relative percent difference (RPD) metric comparing laboratory samples with duplicates. RPD comparisons were made for all analytes measured in this program. Established criteria allow a maximum of 20% RPD for water sample results which are at least five times greater than the RL, and 35% RPD for sediment samples which are at least five times greater than the RL. No RPD values for internal duplicate analyses exceeded the criteria and required qualification of associated data, and no corrective actions were required (Appendix B).

A.3.5.2 Overall

The overall precision of surface water, instream sediment, and groundwater sample analyses in 2015 from the SSTOU was assessed with RPD comparisons between samples and paired field duplicates. Surface water duplicate samples were collected at a frequency of 12% of the total number of field samples during all four quarterly events in 2015. Established criteria allow a maximum of 25% RPD for water sample results >5 times the RL, and 40% RPD for sediment samples >5 times the RL. All associated data which exceeds these criteria will be J-flagged in the project database.

Two surface water sample and duplicate pairs were collected in each quarterly sampling event and these were analyzed for dissolved and total recoverable metals, nutrients, and

common ions [Table A7 through Table A14]. There were no pairs with RPD >25% which had concentrations at least five times greater than the RL.

Groundwater and vadose zone water sample and duplicate pairs were collected in each quarterly sampling event and analyzed for dissolved metals and common ions [Table A15 through Table A18]. There were no pairs with RPD >25% which had concentrations at least five times greater than the RL.

Two instream sediment sample and duplicate pairs were collected in each quarterly sampling event, with the exception of Q4 when only one pair was collected, and these were analyzed for total metals in three size fractions [Table A19 through Table A25]. The pairs with RPD >40% which had concentrations at least five times greater than the RL included:

- aluminum, barium, copper, iron, lead, manganese, vanadium, and zinc for the pairing of samples H15030394-028 and H15030394-031 (one of two field sample and field duplicate pairs collected on March 27, 2015 at site SS-10A in the 1-2 mm size fraction);
- lead for the pairing of samples H15030394-026 and H15030394-032 (one of two field sample and field duplicate pairs collected on March 27, 2015 at site SS-10A in the <0.065 mm size fraction);
- lead, manganese, and zinc for the pairing of samples H15030394-028 and H15030394-034 (one of two field sample and field duplicate pairs collected on March 27, 2015 at site SS-10A in the 1-2 mm size fraction);
- arsenic, cadmium, copper, and zinc in the 0.065-1 mm size fraction for the sample pair collected at SS-15A on May 14, 2015;
- barium, copper, and lead in the 1-2 mm size fraction for the sample pair collected at SS-15A on May 14, 2015;
- mercury in the <0.065 mm size fraction for the sample pair collected at SS-06G on May 15, 2015;
- mercury in the 0.065-1 mm size fraction for the sample pair collected at SS-06G on May 15, 2015;
- aluminum, chromium, and lead in the <0.065 mm size fraction for the sample pair collected at SS-14 on September 9, 2015;
- copper and manganese in the 0.065-1 mm size fraction for the sample pair collected at SS-14 on September 9, 2015;
- arsenic, barium, copper, lead and manganese in the 1-2 mm size fraction for the sample pair collected at SS-14 on September 9, 2015;
- cadmium, copper, and mercury in the <0.065 mm size fraction for the sample pair collected at SS-10A on September 9, 2015;
- cadmium, lead, and zinc in the 0.065-1 mm size fraction for the sample pair collected at SS-10A on September 9, 2015;
- arsenic, barium, copper, lead, manganese, mercury, and zinc in the 0.065-1 mm size fraction for the sample pair collected at SS-10B on December 4, 2015;
- and arsenic, cadmium, copper, lead, and zinc in the 1-2 mm size fraction for the sample pair collected at SS-10B on December 4, 2015.

A.3.5.3 Bias and Accuracy

Bias is defined as directional error from the true value of individual measurements. For field measurements (water temperature, pH, specific conductance, dissolved oxygen [DO] concentration, DO percent saturation, and turbidity), potential bias was addressed through frequent calibration of field instruments documented in calibration logs, and consistent field procedures. For water chemistry and sediment results, potential bias was minimized by adherence to approved field procedures for sample collection and handling, and decontamination of sampling equipment.

Accuracy is the combination of high precision and low bias. Accuracy of laboratory results was assessed by reviewing the analytical method controls (i.e., lab control sample, continuing calibration verification, lab fortified blank, standard reference material) and analytical batch controls (i.e., matrix spike and matrix spike duplicate). Limits established by the laboratory through control charting of each method's performance served as assessment criteria. Any analytical method controls or analytical batch controls that had values outside of the acceptable recovery range were re-analyzed, as detailed in the analytical QC summary provided by Energy Laboratories and included with each analytical summary report (Appendix B).

Table A1. Analyte concentrations in the first quarter (March 26-27, 2015) surface water field blanks from the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Field blank (concentration; mg/L)	
		H15030394-010	H15030393-003
Solids, Total Suspended TSS @ 105 C	1	ND	ND
Solids, Volatile Suspended	1	1	ND
Alkalinity, Total as CaCO3	4	ND	ND
Bicarbonate Alkalinity as HCO3	4	ND	ND
Chloride	1	ND	ND
Sulfate	1	ND	ND
Hardness as CaCO3	1	ND	ND
Organic Carbon, Dissolved (DOC)	0.5	ND	ND
Nitrogen, Ammonia	0.05	ND	ND
NO3+NO2 as N	0.02	ND	ND
N-Total	0.05	ND	ND
Phosphorus, Total as P	0.003	ND	ND
Aluminum, Dissolved	0.009	ND	ND
Antimony, Dissolved	0.0005	ND	ND
Arsenic, Dissolved	0.001	ND	ND
Barium, Dissolved	0.003	ND	ND
Beryllium, Dissolved	0.0008	ND	ND
Boron, Dissolved	0.1	ND	ND
Cadmium, Dissolved	0.00003	ND	ND
Chromium, Dissolved	0.01	ND	ND
Cobalt, Dissolved	0.01	ND	ND
Copper, Dissolved	0.001	ND	ND
Iron, Dissolved	0.02	ND	ND
Lead, Dissolved	0.0003	ND	ND
Manganese, Dissolved	0.001	ND	ND
Mercury, Dissolved	0.000005	ND	ND
Molybdenum, Dissolved	0.005	ND	ND
Nickel, Dissolved	0.002	ND	ND
Selenium, Dissolved	0.001	ND	ND
Silver, Dissolved	0.0002	ND	ND
Uranium, Dissolved	0.0002	ND	ND
Vanadium, Dissolved	0.1	ND	ND
Zinc, Dissolved	0.008	ND	ND
Aluminum, Total Recoverable	0.009	ND	ND
Antimony, Total Recoverable	0.0005	ND	ND
Arsenic, Total Recoverable	0.001	ND	ND
Barium, Total Recoverable	0.003	ND	ND
Beryllium, Total Recoverable	0.0008	ND	ND
Boron, Total Recoverable	0.1	ND	ND
Cadmium, Total Recoverable	0.00003	ND	ND
Calcium, Total Recoverable	1	ND	ND
Chromium, Total Recoverable	0.01	ND	ND

Cobalt, Total Recoverable	0.01	ND	ND
Copper, Total Recoverable	0.001	ND	ND
Iron, Total Recoverable	0.02	ND	ND
Lead, Total Recoverable	0.0003	ND	ND
Magnesium, Total Recoverable	1	ND	ND
Manganese, Total Recoverable	0.001	ND	ND
Mercury, Total Recoverable	0.000005	ND	ND
Molybdenum, Total Recoverable	0.005	ND	ND
Nickel, Total Recoverable	0.002	ND	ND
Potassium, Total Recoverable	1	ND	ND
Selenium, Total Recoverable	0.001	ND	ND
Silver, Total Recoverable	0.0002	ND	ND
Sodium, Total Recoverable	1	ND	ND
Uranium, Total Recoverable	0.0002	ND	ND
Vanadium, Total Recoverable	0.1	ND	ND
Zinc, Total Recoverable	0.008	ND	ND

ND	Not detected at analytical reporting limit.
	Field blank concentration exceeds reporting limit. We recommend "B-flagging" all analyte concentrations (which are <10 times the blank value) from this date in the project database.

Table A2. Analyte concentrations in the second quarter (June 14-15, 2015) surface water field blanks from the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Field blank (concentration; mg/L)	
		H15050235-011	H15050235-002
Solids, Total Suspended TSS @ 105 C	1	ND	ND
Solids, Volatile Suspended	1	ND	ND
Alkalinity, Total as CaCO3	4	ND	ND
Bicarbonate Alkalinity as HCO3	4	ND	ND
Chloride	1	ND	ND
Sulfate	1	ND	ND
Hardness as CaCO3	1	ND	ND
Organic Carbon, Dissolved (DOC)	0.5	ND	ND
Nitrogen, Ammonia	0.05	ND	ND
NO3+NO2 as N	0.02	ND	ND
N-Total	0.05	ND	ND
Phosphorus, Total as P	0.003	ND	ND
Aluminum, Dissolved	0.009	ND	ND
Antimony, Dissolved	0.0005	ND	ND
Arsenic, Dissolved	0.001	ND	ND
Barium, Dissolved	0.003	ND	ND
Beryllium, Dissolved	0.0008	ND	ND
Boron, Dissolved	0.1	ND	ND
Cadmium, Dissolved	0.00003	ND	ND
Chromium, Dissolved	0.01	ND	ND
Cobalt, Dissolved	0.01	ND	ND
Copper, Dissolved	0.001	ND	ND
Iron, Dissolved	0.02	ND	ND
Lead, Dissolved	0.0003	ND	ND
Manganese, Dissolved	0.001	ND	ND
Mercury, Dissolved	0.000005	ND	ND
Molybdenum, Dissolved	0.005	ND	ND
Nickel, Dissolved	0.002	ND	ND
Selenium, Dissolved	0.001	ND	ND
Silver, Dissolved	0.0002	ND	ND
Uranium, Dissolved	0.0002	ND	ND
Vanadium, Dissolved	0.1	ND	ND
Zinc, Dissolved	0.008	0.009	ND
Aluminum, Total Recoverable	0.009	ND	ND
Antimony, Total Recoverable	0.0005	ND	ND
Arsenic, Total Recoverable	0.001	ND	ND
Barium, Total Recoverable	0.003	ND	ND
Beryllium, Total Recoverable	0.0008	ND	ND
Boron, Total Recoverable	0.1	ND	ND
Cadmium, Total Recoverable	0.00003	ND	ND
Calcium, Total Recoverable	1	ND	ND
Chromium, Total Recoverable	0.01	ND	ND

Cobalt, Total Recoverable	0.01	ND	ND
Copper, Total Recoverable	0.001	ND	ND
Iron, Total Recoverable	0.02	ND	ND
Lead, Total Recoverable	0.0003	ND	ND
Magnesium, Total Recoverable	1	ND	ND
Manganese, Total Recoverable	0.001	ND	ND
Mercury, Total Recoverable	0.000005	ND	ND
Molybdenum, Total Recoverable	0.005	ND	ND
Nickel, Total Recoverable	0.002	ND	ND
Potassium, Total Recoverable	1	ND	ND
Selenium, Total Recoverable	0.001	ND	ND
Silver, Total Recoverable	0.0002	ND	ND
Sodium, Total Recoverable	1	ND	ND
Uranium, Total Recoverable	0.0002	ND	ND
Vanadium, Total Recoverable	0.1	ND	ND
Zinc, Total Recoverable	0.008	ND	ND

ND	Not detected at analytical reporting limit.
	Field blank concentration exceeds reporting limit. We recommend "B-flagging" all analyte concentrations (which are <10 times the blank value) from this date in the project database.

Table A3. Analyte concentrations in the third quarter (September 8-9, 2015) surface water field blanks from the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Field blank (concentration; mg/L)	
		H15090206-017	H15090206-009
Solids, Total Suspended TSS @ 105 C	1	ND	ND
Solids, Volatile Suspended	1	ND	ND
Alkalinity, Total as CaCO3	4	ND	ND
Bicarbonate Alkalinity as HCO3	4	ND	ND
Chloride	1	ND	ND
Sulfate	1	ND	ND
Hardness as CaCO3	1	ND	ND
Organic Carbon, Dissolved (DOC)	0.5	ND	ND
Nitrogen, Ammonia	0.05	ND	ND
NO3+NO2 as N	0.02	ND	ND
N-Total	0.05	ND	ND
Phosphorus, Total as P	0.003	ND	ND
Aluminum, Dissolved	0.009	ND	ND
Antimony, Dissolved	0.0005	ND	ND
Arsenic, Dissolved	0.001	ND	ND
Barium, Dissolved	0.003	ND	ND
Beryllium, Dissolved	0.0008	ND	ND
Boron, Dissolved	0.1	ND	ND
Cadmium, Dissolved	0.00003	ND	ND
Chromium, Dissolved	0.01	ND	ND
Cobalt, Dissolved	0.01	ND	ND
Copper, Dissolved	0.001	ND	ND
Iron, Dissolved	0.02	ND	ND
Lead, Dissolved	0.0003	ND	ND
Manganese, Dissolved	0.001	ND	ND
Mercury, Dissolved	0.000005	ND	ND
Molybdenum, Dissolved	0.005	ND	ND
Nickel, Dissolved	0.002	ND	ND
Selenium, Dissolved	0.001	ND	ND
Silver, Dissolved	0.0002	ND	ND
Uranium, Dissolved	0.0002	ND	ND
Vanadium, Dissolved	0.1	ND	ND
Zinc, Dissolved	0.008	0.009	0.010
Aluminum, Total Recoverable	0.009	ND	ND
Antimony, Total Recoverable	0.0005	ND	ND
Arsenic, Total Recoverable	0.001	ND	ND
Barium, Total Recoverable	0.003	ND	ND
Beryllium, Total Recoverable	0.0008	ND	ND
Boron, Total Recoverable	0.1	ND	ND
Cadmium, Total Recoverable	0.00003	ND	ND
Calcium, Total Recoverable	1	ND	ND
Chromium, Total Recoverable	0.01	ND	ND

Cobalt, Total Recoverable	0.01	ND	ND
Copper, Total Recoverable	0.001	ND	ND
Iron, Total Recoverable	0.02	ND	ND
Lead, Total Recoverable	0.0003	ND	ND
Magnesium, Total Recoverable	1	ND	ND
Manganese, Total Recoverable	0.001	ND	ND
Mercury, Total Recoverable	0.000005	ND	ND
Molybdenum, Total Recoverable	0.005	ND	ND
Nickel, Total Recoverable	0.002	ND	ND
Potassium, Total Recoverable	1	ND	ND
Selenium, Total Recoverable	0.001	ND	ND
Silver, Total Recoverable	0.0002	ND	ND
Sodium, Total Recoverable	1	ND	ND
Uranium, Total Recoverable	0.0002	ND	ND
Vanadium, Total Recoverable	0.1	ND	ND
Zinc, Total Recoverable	0.008	ND	ND

ND	Not detected at analytical reporting limit.
	Field blank concentration exceeds reporting limit. We recommend "B-flagging" all analyte concentrations (which are <10 times the blank value) from this date in the project database.

Table A4. Analyte concentrations in the fourth quarter (December 3-4, 2015) surface water field blanks from the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Field blank (concentration; mg/L)	
		H15120093-018	H15120093-002
Solids, Total Suspended TSS @ 105 C	1	ND	ND
Solids, Volatile Suspended	1	ND	ND
Alkalinity, Total as CaCO3	4	ND	ND
Bicarbonate Alkalinity as HCO3	4	ND	ND
Chloride	1	ND	ND
Sulfate	1	ND	ND
Hardness as CaCO3	1	ND	ND
Organic Carbon, Dissolved (DOC)	0.5	ND	ND
Nitrogen, Ammonia	0.05	ND	ND
NO3+NO2 as N	0.02	ND	ND
N-Total	0.05	ND	ND
Phosphorus, Total as P	0.003	ND	ND
Aluminum, Dissolved	0.009	ND	ND
Antimony, Dissolved	0.0005	ND	ND
Arsenic, Dissolved	0.001	ND	ND
Barium, Dissolved	0.003	ND	ND
Beryllium, Dissolved	0.0008	ND	ND
Boron, Dissolved	0.1	ND	ND
Cadmium, Dissolved	0.00003	ND	ND
Chromium, Dissolved	0.01	ND	ND
Cobalt, Dissolved	0.01	ND	ND
Copper, Dissolved	0.001	ND	ND
Iron, Dissolved	0.02	ND	ND
Lead, Dissolved	0.0003	ND	ND
Manganese, Dissolved	0.001	ND	ND
Mercury, Dissolved	0.000005	ND	ND
Molybdenum, Dissolved	0.005	ND	ND
Nickel, Dissolved	0.002	ND	ND
Selenium, Dissolved	0.001	ND	ND
Silver, Dissolved	0.0002	ND	ND
Uranium, Dissolved	0.0002	ND	ND
Vanadium, Dissolved	0.1	ND	ND
Zinc, Dissolved	0.008	ND	0.015
Aluminum, Total Recoverable	0.009	ND	ND
Antimony, Total Recoverable	0.0005	ND	ND
Arsenic, Total Recoverable	0.001	ND	ND
Barium, Total Recoverable	0.003	ND	ND
Beryllium, Total Recoverable	0.0008	ND	ND
Boron, Total Recoverable	0.1	ND	ND
Cadmium, Total Recoverable	0.00003	ND	ND
Calcium, Total Recoverable	1	ND	ND
Chromium, Total Recoverable	0.01	ND	ND

Cobalt, Total Recoverable	0.01	ND	ND
Copper, Total Recoverable	0.001	ND	ND
Iron, Total Recoverable	0.02	ND	ND
Lead, Total Recoverable	0.0003	ND	ND
Magnesium, Total Recoverable	1	ND	ND
Manganese, Total Recoverable	0.001	0.002	ND
Mercury, Total Recoverable	0.000005	ND	ND
Molybdenum, Total Recoverable	0.005	ND	ND
Nickel, Total Recoverable	0.002	ND	ND
Potassium, Total Recoverable	1	ND	ND
Selenium, Total Recoverable	0.001	ND	ND
Silver, Total Recoverable	0.0002	ND	ND
Sodium, Total Recoverable	1	ND	ND
Uranium, Total Recoverable	0.0002	ND	ND
Vanadium, Total Recoverable	0.1	ND	ND
Zinc, Total Recoverable	0.008	ND	ND

ND	Not detected at analytical reporting limit.
	Field blank concentration exceeds reporting limit. We recommend "B-flagging" all analyte concentrations (which are <10 times the blank value) from this date in the project database.

Table A5. Analyte concentrations in the second quarter (June 7, 2015) groundwater field blanks from the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Field blank (concentration; mg/L)
		H15050137-014
Alkalinity, Total as CaCO3	4	ND
Bicarbonate Alkalinity as HCO3	4	ND
Chloride	1	ND
Sulfate	1	ND
Hardness as CaCO3	1	ND
Aluminum, Dissolved	0.009	ND
Antimony, Dissolved	0.0005	ND
Arsenic, Dissolved	0.001	ND
Barium, Dissolved	0.003	ND
Beryllium, Dissolved	0.0008	ND
Boron, Dissolved	0.1	ND
Cadmium, Dissolved	0.00003	ND
Calcium, Dissolved	1	ND
Chromium, Dissolved	0.01	ND
Cobalt, Dissolved	0.01	ND
Copper, Dissolved	0.001	ND
Iron, Dissolved	0.02	ND
Lead, Dissolved	0.0003	ND
Magnesium, Dissolved	1	ND
Manganese, Dissolved	0.001	ND
Mercury, Dissolved	5E-06	ND
Molybdenum, Dissolved	0.005	ND
Nickel, Dissolved	0.002	ND
Potassium, Dissolved	1	ND
Selenium, Dissolved	0.001	ND
Silver, Dissolved	0.0002	ND
Sodium, Dissolved	1	ND
Uranium, Dissolved	0.0002	ND
Vanadium, Dissolved	0.1	ND
Zinc, Dissolved	0.008	ND

ND	Not detected at analytical reporting limit.
	Field blank concentration exceeds reporting limit. We recommend "B-flagging" all analyte concentrations (which are <10 times the blank value) from this date in the project database.

Table A6. Analyte concentrations in the third quarter (September 15-17, 2015) groundwater field blanks from the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Field blank (concentration; mg/L)		
		H15090363-047	H15090363-043	H15090363-042
Alkalinity, Total as CaCO3	4	ND	ND	ND
Bicarbonate Alkalinity as HCO3	4	ND	ND	ND
Chloride	1	ND	ND	ND
Sulfate	1	ND	ND	ND
Hardness as CaCO3	1	ND	ND	ND
Aluminum, Dissolved	0.009	ND	ND	ND
Antimony, Dissolved	0.0005	ND	ND	ND
Arsenic, Dissolved	0.001	ND	ND	ND
Barium, Dissolved	0.003	ND	ND	ND
Beryllium, Dissolved	0.0008	ND	ND	ND
Boron, Dissolved	0.1	ND	ND	ND
Cadmium, Dissolved	0.00003	ND	ND	ND
Calcium, Dissolved	1	ND	ND	ND
Chromium, Dissolved	0.01	ND	ND	ND
Cobalt, Dissolved	0.01	ND	ND	ND
Copper, Dissolved	0.001	ND	ND	ND
Iron, Dissolved	0.02	ND	ND	ND
Lead, Dissolved	0.0003	ND	ND	ND
Magnesium, Dissolved	1	ND	ND	ND
Manganese, Dissolved	0.001	ND	ND	ND
Mercury, Dissolved	5E-06	ND	ND	ND
Molybdenum, Dissolved	0.005	ND	ND	ND
Nickel, Dissolved	0.002	ND	ND	ND
Potassium, Dissolved	1	ND	ND	ND
Selenium, Dissolved	0.001	ND	ND	ND
Silver, Dissolved	0.0002	ND	ND	ND
Sodium, Dissolved	1	ND	ND	ND
Uranium, Dissolved	0.0002	ND	ND	ND
Vanadium, Dissolved	0.1	ND	ND	ND
Zinc, Dissolved	0.008	ND	ND	ND

ND	Not detected at analytical reporting limit.
	Field blank concentration exceeds reporting limit. We recommend "B-flagging" all analyte concentrations (which are <10 times the blank value) from this date in the project database.

Table A7. Analyte concentrations in the first quarter (March 26, 2015) surface water field sample (H15030394-008) and field duplicate (H15030394-009) from site SS-13 in the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
		H15030394-008	H15030394-009	
Solids, Total Suspended TSS @ 105 C	1	10	12	18.18
Solids, Volatile Suspended	1	4	4	0.00
Alkalinity, Total as CaCO3	4	96	95	1.05
Bicarbonate Alkalinity as HCO3	4	120	110	8.70
Chloride	1	34	34	0.00
Sulfate	1	65	66	1.53
Hardness as CaCO3	1	156	156	0.00
Organic Carbon, Dissolved (DOC)	0.5	4.9	4.9	0.00
Nitrogen, Ammonia	0.05	0.38	0.38	0.00
NO3+NO2 as N	0.02	1.33	1.34	0.75
N-Total	0.05	6.1	6.1	0.00
Phosphorus, Total as P	0.003	0.273	0.277	1.45
Aluminum, Dissolved	0.009	ND	ND	0.00
Antimony, Dissolved	0.0005	ND	ND	0.00
Arsenic, Dissolved	0.001	0.006	0.006	0.00
Barium, Dissolved	0.003	0.035	0.034	2.90
Beryllium, Dissolved	0.0008	ND	ND	0.00
Boron, Dissolved	0.1	ND	ND	0.00
Cadmium, Dissolved	0.00003	0.0001	0.00011	9.52
Chromium, Dissolved	0.01	ND	ND	0.00
Cobalt, Dissolved	0.01	ND	ND	0.00
Copper, Dissolved	0.001	0.013	0.013	0.00
Iron, Dissolved	0.02	0.06	0.06	0.00
Lead, Dissolved	0.0003	ND	ND	0.00
Manganese, Dissolved	0.001	0.184	0.182	1.09
Mercury, Dissolved	0.000005	ND	ND	0.00
Molybdenum, Dissolved	0.005	ND	ND	0.00
Nickel, Dissolved	0.002	ND	ND	0.00
Selenium, Dissolved	0.001	ND	ND	0.00
Silver, Dissolved	0.0002	ND	ND	0.00
Uranium, Dissolved	0.0002	0.0039	0.0039	0.00
Vanadium, Dissolved	0.1	ND	ND	0.00
Zinc, Dissolved	0.008	0.04	0.038	5.13
Aluminum, Total Recoverable	0.009	0.392	0.372	5.24
Antimony, Total Recoverable	0.0005	ND	ND	0.00
Arsenic, Total Recoverable	0.001	0.007	0.007	0.00
Barium, Total Recoverable	0.003	0.037	0.037	0.00
Beryllium, Total Recoverable	0.0008	ND	ND	0.00
Boron, Total Recoverable	0.1	ND	ND	0.00
Cadmium, Total Recoverable	0.00003	0.00032	0.00032	0.00

Calcium, Total Recoverable	1	48	48	0.00
Chromium, Total Recoverable	0.01	ND	ND	0.00
Cobalt, Total Recoverable	0.01	ND	ND	0.00
Copper, Total Recoverable	0.001	0.023	0.022	4.44
Iron, Total Recoverable	0.02	0.52	0.5	3.92
Lead, Total Recoverable	0.0003	0.0016	0.0015	6.45
Magnesium, Total Recoverable	1	11	11	0.00
Manganese, Total Recoverable	0.001	0.214	0.215	0.47
Mercury, Total Recoverable	0.000005	0.000011	0.000008	31.58
Molybdenum, Total Recoverable	0.005	ND	ND	0.00
Nickel, Total Recoverable	0.002	ND	ND	0.00
Potassium, Total Recoverable	1	5	5	0.00
Selenium, Total Recoverable	0.001	ND	ND	0.00
Silver, Total Recoverable	0.0002	ND	ND	0.00
Sodium, Total Recoverable	1	25	25	0.00
Uranium, Total Recoverable	0.0002	0.004	0.0041	2.47
Vanadium, Total Recoverable	0.1	ND	ND	0.00
Zinc, Total Recoverable	0.008	0.07	0.072	2.82

ND	Not detected at analytical reporting limit.
-	Relative percent difference unknown because one or both of the concentrations was unknown (i.e., ND).
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). However, because both of the concentrations were <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A8. Analyte concentrations in the first quarter (March 27, 2015) surface water field sample (H15030393-001) and field duplicate (H15030393-002) from site SS-01 in the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
		H15030393-001	H15030393-002	
Solids, Total Suspended TSS @ 105 C	1	9	8	11.76
Solids, Volatile Suspended	1	3	3	0.00
Alkalinity, Total as CaCO3	4	80	75	6.45
Bicarbonate Alkalinity as HCO3	4	97	91	6.38
Chloride	1	10	10	0.00
Sulfate	1	18	18	0.00
Hardness as CaCO3	1	94	92	2.15
Organic Carbon, Dissolved (DOC)	0.5	4.4	4.3	2.30
Nitrogen, Ammonia	0.05	ND	ND	0.00
NO3+NO2 as N	0.02	0.39	0.39	0.00
N-Total	0.05	0.66	0.61	7.87
Phosphorus, Total as P	0.003	0.083	0.087	4.71
Aluminum, Dissolved	0.009	ND	ND	0.00
Antimony, Dissolved	0.0005	ND	ND	0.00
Arsenic, Dissolved	0.001	0.003	0.003	0.00
Barium, Dissolved	0.003	0.039	0.039	0.00
Beryllium, Dissolved	0.0008	ND	ND	0.00
Boron, Dissolved	0.1	ND	ND	0.00
Cadmium, Dissolved	0.00003	ND	ND	0.00
Chromium, Dissolved	0.01	ND	ND	0.00
Cobalt, Dissolved	0.01	ND	ND	0.00
Copper, Dissolved	0.001	0.003	0.004	28.57
Iron, Dissolved	0.02	0.31	0.3	3.28
Lead, Dissolved	0.0003	ND	ND	0.00
Manganese, Dissolved	0.001	0.034	0.035	2.90
Mercury, Dissolved	0.000005	0.000008	0.000007	13.33
Molybdenum, Dissolved	0.005	0.005	0.005	0.00
Nickel, Dissolved	0.002	ND	ND	0.00
Selenium, Dissolved	0.001	ND	ND	0.00
Silver, Dissolved	0.0002	ND	ND	0.00
Uranium, Dissolved	0.0002	0.0027	0.0028	3.64
Vanadium, Dissolved	0.1	ND	ND	0.00
Zinc, Dissolved	0.008	ND	ND	0.00
Aluminum, Total Recoverable	0.009	0.251	0.251	0.00
Antimony, Total Recoverable	0.0005	0.0005	0.0005	0.00
Arsenic, Total Recoverable	0.001	0.005	0.004	22.22
Barium, Total Recoverable	0.003	0.043	0.043	0.00
Beryllium, Total Recoverable	0.0008	ND	ND	0.00
Boron, Total Recoverable	0.1	ND	ND	0.00
Cadmium, Total Recoverable	0.00003	ND	ND	0.00

Calcium, Total Recoverable	1	28	28	0.00
Chromium, Total Recoverable	0.01	ND	ND	0.00
Cobalt, Total Recoverable	0.01	ND	ND	0.00
Copper, Total Recoverable	0.001	0.006	0.006	0.00
Iron, Total Recoverable	0.02	0.88	0.89	1.13
Lead, Total Recoverable	0.0003	0.0009	0.0009	0.00
Magnesium, Total Recoverable	1	6	6	0.00
Manganese, Total Recoverable	0.001	0.055	0.056	1.80
Mercury, Total Recoverable	0.000005	0.000016	0.000014	13.33
Molybdenum, Total Recoverable	0.005	0.005	0.005	0.00
Nickel, Total Recoverable	0.002	ND	ND	0.00
Potassium, Total Recoverable	1	2	2	0.00
Selenium, Total Recoverable	0.001	ND	ND	0.00
Silver, Total Recoverable	0.0002	ND	ND	0.00
Sodium, Total Recoverable	1	10	10	0.00
Uranium, Total Recoverable	0.0002	0.003	0.003	0.00
Vanadium, Total Recoverable	0.1	ND	ND	0.00
Zinc, Total Recoverable	0.008	0.009	0.009	0.00

ND	Not detected at analytical reporting limit.
-	Relative percent difference unknown because one or both of the concentrations was unknown (i.e., ND).
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). However, because both of the concentrations were <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A9. Analyte concentrations in the second quarter (May 14, 2015) surface water field sample (H15050235-016) and field duplicate (H15050235-017) from site SS-17D in the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
		H15050235-016	H15050235-017	
Solids, Total Suspended TSS @ 105	1	17	17	0.00
Solids, Volatile Suspended	1	6	6	0.00
Alkalinity, Total as CaCO3	4	89	88	1.13
Bicarbonate Alkalinity as HCO3	4	110	110	0.00
Chloride	1	17	17	0.00
Sulfate	1	51	51	0.00
Hardness as CaCO3	1	137	140	2.17
Organic Carbon, Dissolved (DOC)	0.5	5.7	5.7	0.00
Nitrogen, Ammonia	0.05	ND	ND	0.00
NO3+NO2 as N	0.02	0.6	0.59	1.68
N-Total	0.05	1.14	1.14	0.00
Phosphorus, Total as P	0.003	0.143	0.133	7.25
Aluminum, Dissolved	0.009	ND	ND	0.00
Antimony, Dissolved	0.0005	ND	ND	0.00
Arsenic, Dissolved	0.001	0.006	0.006	0.00
Barium, Dissolved	0.003	0.026	0.026	0.00
Beryllium, Dissolved	0.0008	ND	ND	0.00
Boron, Dissolved	0.1	ND	ND	0.00
Cadmium, Dissolved	0.00003	0.00013	0.00014	7.41
Chromium, Dissolved	0.01	ND	ND	0.00
Cobalt, Dissolved	0.01	ND	ND	0.00
Copper, Dissolved	0.001	0.01	0.01	0.00
Iron, Dissolved	0.02	0.05	0.05	0.00
Lead, Dissolved	0.0003	ND	ND	0.00
Manganese, Dissolved	0.001	0.112	0.113	0.89
Mercury, Dissolved	0.000005	ND	ND	0.00
Molybdenum, Dissolved	0.005	ND	ND	0.00
Nickel, Dissolved	0.002	ND	ND	0.00
Selenium, Dissolved	0.001	ND	ND	0.00
Silver, Dissolved	0.0002	ND	ND	0.00
Uranium, Dissolved	0.0002	0.0022	0.0022	0.00
Vanadium, Dissolved	0.1	ND	ND	0.00
Zinc, Dissolved	0.008	0.031	0.032	3.17
Aluminum, Total Recoverable	0.009	0.373	0.384	2.91
Antimony, Total Recoverable	0.0005	ND	ND	0.00
Arsenic, Total Recoverable	0.001	0.006	0.006	0.00
Barium, Total Recoverable	0.003	0.029	0.029	0.00
Beryllium, Total Recoverable	0.0008	ND	ND	0.00
Boron, Total Recoverable	0.1	ND	ND	0.00
Cadmium, Total Recoverable	0.00003	0.0003	0.00031	3.28

Calcium, Total Recoverable	1	42	41	2.41
Chromium, Total Recoverable	0.01	ND	ND	0.00
Cobalt, Total Recoverable	0.01	ND	ND	0.00
Copper, Total Recoverable	0.001	0.02	0.019	5.13
Iron, Total Recoverable	0.02	0.43	0.44	2.30
Lead, Total Recoverable	0.0003	0.002	0.002	0.00
Magnesium, Total Recoverable	1	8	8	0.00
Manganese, Total Recoverable	0.001	0.168	0.169	0.59
Mercury, Total Recoverable	0.000005	0.000015	0.000014	6.90
Molybdenum, Total Recoverable	0.005	ND	ND	0.00
Nickel, Total Recoverable	0.002	ND	ND	0.00
Potassium, Total Recoverable	1	4	4	0.00
Selenium, Total Recoverable	0.001	ND	ND	0.00
Silver, Total Recoverable	0.0002	0.0004	ND	200.00
Sodium, Total Recoverable	1	18	17	5.71
Uranium, Total Recoverable	0.0002	0.0025	0.0024	4.08
Vanadium, Total Recoverable	0.1	ND	ND	0.00
Zinc, Total Recoverable	0.008	0.067	0.066	1.50

ND	Not detected at analytical reporting limit.
-	Relative percent difference unknown because one or both of the concentrations was unknown (i.e., ND).
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). However, because both of the concentrations were <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A10. Analyte concentrations in the second quarter (May 15, 2015) surface water field sample (H15050235-008) and field duplicate (H15050235-009) from site SS-11D in the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
		H15050235-008	H15050235-009	
Solids, Total Suspended TSS @ 105	1	19	19	0.00
Solids, Volatile Suspended	1	7	6	15.38
Alkalinity, Total as CaCO3	4	100	100	0.00
Bicarbonate Alkalinity as HCO3	4	130	130	0.00
Chloride	1	34	35	2.90
Sulfate	1	72	72	0.00
Hardness as CaCO3	1	169	169	0.00
Organic Carbon, Dissolved (DOC)	0.5	7.7	7.7	0.00
Nitrogen, Ammonia	0.05	0.67	0.66	1.50
NO3+NO2 as N	0.02	1.28	1.29	0.78
N-Total	0.05	2.85	2.87	0.70
Phosphorus, Total as P	0.003	0.389	0.41	5.26
Aluminum, Dissolved	0.009	ND	ND	0.00
Antimony, Dissolved	0.0005	ND	ND	0.00
Arsenic, Dissolved	0.001	0.01	0.01	0.00
Barium, Dissolved	0.003	0.037	0.037	0.00
Beryllium, Dissolved	0.0008	ND	ND	0.00
Boron, Dissolved	0.1	ND	ND	0.00
Cadmium, Dissolved	0.00003	0.00019	0.00019	0.00
Chromium, Dissolved	0.01	ND	ND	0.00
Cobalt, Dissolved	0.01	ND	ND	0.00
Copper, Dissolved	0.001	0.012	0.013	8.00
Iron, Dissolved	0.02	0.11	0.11	0.00
Lead, Dissolved	0.0003	0.0003	0.0003	0.00
Manganese, Dissolved	0.001	0.283	0.285	0.70
Mercury, Dissolved	0.000005	ND	0.000009	200.00
Molybdenum, Dissolved	0.005	ND	ND	0.00
Nickel, Dissolved	0.002	ND	ND	0.00
Selenium, Dissolved	0.001	ND	ND	0.00
Silver, Dissolved	0.0002	ND	ND	0.00
Uranium, Dissolved	0.0002	0.0036	0.0036	0.00
Vanadium, Dissolved	0.1	ND	ND	0.00
Zinc, Dissolved	0.008	0.091	0.094	3.24
Aluminum, Total Recoverable	0.009	0.388	0.358	8.04
Antimony, Total Recoverable	0.0005	ND	ND	0.00
Arsenic, Total Recoverable	0.001	0.01	0.01	0.00
Barium, Total Recoverable	0.003	0.043	0.042	2.35
Beryllium, Total Recoverable	0.0008	ND	ND	0.00
Boron, Total Recoverable	0.1	ND	ND	0.00
Cadmium, Total Recoverable	0.00003	0.00041	0.00038	7.59

Calcium, Total Recoverable	1	49	48	2.06
Chromium, Total Recoverable	0.01	ND	ND	0.00
Cobalt, Total Recoverable	0.01	ND	ND	0.00
Copper, Total Recoverable	0.001	0.025	0.025	0.00
Iron, Total Recoverable	0.02	0.64	0.6	6.45
Lead, Total Recoverable	0.0003	0.0026	0.0024	8.00
Magnesium, Total Recoverable	1	11	10	9.52
Manganese, Total Recoverable	0.001	0.341	0.329	3.58
Mercury, Total Recoverable	0.000005	0.000012	0.000012	0.00
Molybdenum, Total Recoverable	0.005	ND	ND	0.00
Nickel, Total Recoverable	0.002	ND	ND	0.00
Potassium, Total Recoverable	1	6	6	0.00
Selenium, Total Recoverable	0.001	ND	ND	0.00
Silver, Total Recoverable	0.0002	ND	ND	0.00
Sodium, Total Recoverable	1	29	29	0.00
Uranium, Total Recoverable	0.0002	0.0038	0.0038	0.00
Vanadium, Total Recoverable	0.1	ND	ND	0.00
Zinc, Total Recoverable	0.008	0.121	0.116	4.22

ND	Not detected at analytical reporting limit.
-	Relative percent difference unknown because one or both of the concentrations was unknown (i.e., ND).
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). However, because both of the concentrations were <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A11. Analyte concentrations in the third quarter (September 8, 2015) surface water field sample (H15090206-013) and field duplicate (H15090206-014) from site SS-15B in the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
		H15090206-013	H15090206-014	
Solids, Total Suspended TSS @ 105	1	6	6	0.00
Solids, Volatile Suspended	1	3	2	40.00
Alkalinity, Total as CaCO3	4	110	110	0.00
Bicarbonate Alkalinity as HCO3	4	120	130	8.00
Chloride	1	33	33	0.00
Sulfate	1	73	73	0.00
Hardness as CaCO3	1	177	177	0.00
Organic Carbon, Dissolved (DOC)	0.5	3.6	3.6	0.00
Nitrogen, Ammonia	0.05	ND	ND	0.00
NO3+NO2 as N	0.02	1.96	1.96	0.00
N-Total	0.05	4.2	4.2	0.00
Phosphorus, Total as P	0.003	0.203	0.191	6.09
Aluminum, Dissolved	0.009	ND	ND	0.00
Antimony, Dissolved	0.0005	ND	ND	0.00
Arsenic, Dissolved	0.001	0.006	0.006	0.00
Barium, Dissolved	0.003	0.032	0.033	3.08
Beryllium, Dissolved	0.0008	ND	ND	0.00
Boron, Dissolved	0.1	ND	ND	0.00
Cadmium, Dissolved	0.00003	0.00004	0.00004	0.00
Chromium, Dissolved	0.01	ND	ND	0.00
Cobalt, Dissolved	0.01	ND	ND	0.00
Copper, Dissolved	0.001	0.005	0.005	0.00
Iron, Dissolved	0.02	ND	ND	0.00
Lead, Dissolved	0.0003	ND	ND	0.00
Manganese, Dissolved	0.001	0.053	0.054	1.87
Mercury, Dissolved	0.000005	ND	ND	0.00
Molybdenum, Dissolved	0.005	ND	ND	0.00
Nickel, Dissolved	0.002	ND	ND	0.00
Selenium, Dissolved	0.001	ND	ND	0.00
Silver, Dissolved	0.0002	ND	ND	0.00
Uranium, Dissolved	0.0002	0.0031	0.0031	0.00
Vanadium, Dissolved	0.1	ND	ND	0.00
Zinc, Dissolved	0.008	0.017	0.017	0.00
Aluminum, Total Recoverable	0.009	0.063	0.072	13.33
Antimony, Total Recoverable	0.0005	ND	ND	0.00
Arsenic, Total Recoverable	0.001	0.006	0.006	0.00
Barium, Total Recoverable	0.003	0.035	0.034	2.90
Beryllium, Total Recoverable	0.0008	ND	ND	0.00
Boron, Total Recoverable	0.1	ND	ND	0.00
Cadmium, Total Recoverable	0.00003	0.00012	0.00013	8.00

Calcium, Total Recoverable	1	52	53	1.90
Chromium, Total Recoverable	0.01	ND	ND	0.00
Cobalt, Total Recoverable	0.01	ND	ND	0.00
Copper, Total Recoverable	0.001	0.009	0.01	10.53
Iron, Total Recoverable	0.02	0.13	0.13	0.00
Lead, Total Recoverable	0.0003	0.001	0.001	0.00
Magnesium, Total Recoverable	1	11	11	0.00
Manganese, Total Recoverable	0.001	0.099	0.096	3.08
Mercury, Total Recoverable	0.000005	0.000008	0.000006	28.57
Molybdenum, Total Recoverable	0.005	ND	ND	0.00
Nickel, Total Recoverable	0.002	ND	ND	0.00
Potassium, Total Recoverable	1	5	5	0.00
Selenium, Total Recoverable	0.001	ND	ND	0.00
Silver, Total Recoverable	0.0002	ND	ND	0.00
Sodium, Total Recoverable	1	23	23	0.00
Uranium, Total Recoverable	0.0002	0.0034	0.0034	0.00
Vanadium, Total Recoverable	0.1	ND	ND	0.00
Zinc, Total Recoverable	0.008	0.029	0.030	3.39

ND	Not detected at analytical reporting limit.
-	Relative percent difference unknown because one or both of the concentrations was unknown (i.e., ND).
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). However, because both of the concentrations were <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A12. Analyte concentrations in the third quarter (September 9, 2015) surface water field sample (H15090206-005) and field duplicate (H15090206-006) from site SS-10B in the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
		H15090206-005	H15090206-006	
Solids, Total Suspended TSS @ 105	1	5	5	0.00
Solids, Volatile Suspended	1	2	2	0.00
Alkalinity, Total as CaCO3	4	110	110	0.00
Bicarbonate Alkalinity as HCO3	4	130	130	0.00
Chloride	1	32	32	0.00
Sulfate	1	98	98	0.00
Hardness as CaCO3	1	180	180	0.00
Organic Carbon, Dissolved (DOC)	0.5	4.3	4.1	4.76
Nitrogen, Ammonia	0.05	0.54	0.55	1.83
NO3+NO2 as N	0.02	3.01	3.01	0.00
N-Total	0.05	18.8	19.2	2.11
Phosphorus, Total as P	0.003	0.412	0.425	3.11
Aluminum, Dissolved	0.009	ND	ND	0.00
Antimony, Dissolved	0.0005	ND	ND	0.00
Arsenic, Dissolved	0.001	0.006	0.006	0.00
Barium, Dissolved	0.003	0.042	0.043	2.35
Beryllium, Dissolved	0.0008	ND	ND	0.00
Boron, Dissolved	0.1	ND	ND	0.00
Cadmium, Dissolved	0.00003	0.00009	0.00009	0.00
Chromium, Dissolved	0.01	ND	ND	0.00
Cobalt, Dissolved	0.01	ND	ND	0.00
Copper, Dissolved	0.001	0.008	0.009	11.76
Iron, Dissolved	0.02	0.04	0.04	0.00
Lead, Dissolved	0.0003	ND	ND	0.00
Manganese, Dissolved	0.001	0.121	0.123	1.64
Mercury, Dissolved	0.000005	0.000006	0.000005	18.18
Molybdenum, Dissolved	0.005	0.006	0.006	0.00
Nickel, Dissolved	0.002	ND	ND	0.00
Selenium, Dissolved	0.001	ND	ND	0.00
Silver, Dissolved	0.0002	ND	ND	0.00
Uranium, Dissolved	0.0002	0.0047	0.0047	0.00
Vanadium, Dissolved	0.1	ND	ND	0.00
Zinc, Dissolved	0.008	0.048	0.048	0.00
Aluminum, Total Recoverable	0.009	0.049	0.059	18.52
Antimony, Total Recoverable	0.0005	ND	ND	0.00
Arsenic, Total Recoverable	0.001	0.007	0.006	15.38
Barium, Total Recoverable	0.003	0.043	0.042	2.35
Beryllium, Total Recoverable	0.0008	ND	ND	0.00
Boron, Total Recoverable	0.1	ND	ND	0.00
Cadmium, Total Recoverable	0.00003	0.00018	0.00017	5.71

Calcium, Total Recoverable	1	51	52	1.94
Chromium, Total Recoverable	0.01	ND	ND	0.00
Cobalt, Total Recoverable	0.01	ND	ND	0.00
Copper, Total Recoverable	0.001	0.014	0.015	6.90
Iron, Total Recoverable	0.02	0.14	0.16	13.33
Lead, Total Recoverable	0.0003	0.0009	0.001	10.53
Magnesium, Total Recoverable	1	12	12	0.00
Manganese, Total Recoverable	0.001	0.14	0.144	2.82
Mercury, Total Recoverable	0.000005	0.000009	0.000008	11.76
Molybdenum, Total Recoverable	0.005	0.006	0.006	0.00
Nickel, Total Recoverable	0.002	0.002	ND	0.00
Potassium, Total Recoverable	1	6	7	15.38
Selenium, Total Recoverable	0.001	ND	ND	0.00
Silver, Total Recoverable	0.0002	ND	ND	0.00
Sodium, Total Recoverable	1	28	29	3.51
Uranium, Total Recoverable	0.0002	0.0051	0.0052	1.94
Vanadium, Total Recoverable	0.1	ND	ND	0.00
Zinc, Total Recoverable	0.008	0.054	0.056	3.64

ND	Not detected at analytical reporting limit.
-	Relative percent difference unknown because one or both of the concentrations was unknown (i.e., ND).
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). However, because both of the concentrations were <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A13. Analyte concentrations in the fourth quarter (December 3, 2015) surface water field sample (H15120093-011) and field duplicate (H15120093-012) from site SS-14 in the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
		H15120093-011	H15120093-012	
Solids, Total Suspended TSS @ 105	1	26	25	3.92
Solids, Volatile Suspended	1	8	7	13.33
Alkalinity, Total as CaCO3	4	130	130	0.00
Bicarbonate Alkalinity as HCO3	4	150	150	0.00
Chloride	1	49	49	0.00
Sulfate	1	93	90	3.28
Hardness as CaCO3	1	217	218	0.46
Organic Carbon, Dissolved (DOC)	0.5	3.4	3.4	0.00
Nitrogen, Ammonia	0.05	2	1.9	5.13
NO3+NO2 as N	0.02	1.97	2	1.51
N-Total	0.05	5.1	4.5	12.50
Phosphorus, Total as P	0.003	0.302	0.302	0.00
Aluminum, Dissolved	0.009	ND	ND	0.00
Antimony, Dissolved	0.0005	ND	ND	0.00
Arsenic, Dissolved	0.001	0.005	0.005	0.00
Barium, Dissolved	0.003	0.045	0.045	0.00
Beryllium, Dissolved	0.0008	ND	ND	0.00
Boron, Dissolved	0.1	ND	ND	0.00
Cadmium, Dissolved	0.00003	0.0001	0.00012	18.18
Chromium, Dissolved	0.01	ND	ND	0.00
Cobalt, Dissolved	0.01	ND	ND	0.00
Copper, Dissolved	0.001	0.007	0.007	0.00
Iron, Dissolved	0.02	0.03	0.03	0.00
Lead, Dissolved	0.0003	ND	ND	0.00
Manganese, Dissolved	0.001	0.294	0.296	0.68
Mercury, Dissolved	0.000005	ND	ND	0.00
Molybdenum, Dissolved	0.005	0.005	0.005	0.00
Nickel, Dissolved	0.002	ND	ND	0.00
Selenium, Dissolved	0.001	ND	ND	0.00
Silver, Dissolved	0.0002	ND	ND	0.00
Uranium, Dissolved	0.0002	0.006	0.0061	1.65
Vanadium, Dissolved	0.1	ND	ND	0.00
Zinc, Dissolved	0.008	0.108	0.108	0.00
Aluminum, Total Recoverable	0.009	0.542	0.556	2.55
Antimony, Total Recoverable	0.0005	ND	ND	0.00
Arsenic, Total Recoverable	0.001	0.006	0.007	15.38
Barium, Total Recoverable	0.003	0.053	0.055	3.70
Beryllium, Total Recoverable	0.0008	ND	ND	0.00
Boron, Total Recoverable	0.1	ND	ND	0.00
Cadmium, Total Recoverable	0.00003	0.00044	0.00046	4.44

Calcium, Total Recoverable	1	64	65	1.55
Chromium, Total Recoverable	0.01	ND	ND	0.00
Cobalt, Total Recoverable	0.01	ND	ND	0.00
Copper, Total Recoverable	0.001	0.032	0.032	0.00
Iron, Total Recoverable	0.02	0.8	0.83	3.68
Lead, Total Recoverable	0.0003	0.0045	0.0046	2.20
Magnesium, Total Recoverable	1	14	14	0.00
Manganese, Total Recoverable	0.001	0.375	0.378	0.80
Mercury, Total Recoverable	0.000005	0.000017	0.000017	0.00
Molybdenum, Total Recoverable	0.005	0.005	0.005	0.00
Nickel, Total Recoverable	0.002	ND	ND	0.00
Potassium, Total Recoverable	1	7	7	0.00
Selenium, Total Recoverable	0.001	ND	ND	0.00
Silver, Total Recoverable	0.0002	ND	ND	0.00
Sodium, Total Recoverable	1	37	37	0.00
Uranium, Total Recoverable	0.0002	0.0066	0.0066	0.00
Vanadium, Total Recoverable	0.1	ND	ND	0.00
Zinc, Total Recoverable	0.008	0.158	0.159	0.63

ND	Not detected at analytical reporting limit.
-	Relative percent difference unknown because one or both of the concentrations was unknown (i.e., ND).
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). However, because both of the concentrations were <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A14. Analyte concentrations in the fourth quarter (December 4, 2015) surface water field sample (H15120093-005) and field duplicate (H15120093-006) from site SS-10A in the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
		H15120093-005	H15120093-006	
Solids, Total Suspended TSS @ 105	1	41	40	2.47
Solids, Volatile Suspended	1	11	11	0.00
Alkalinity, Total as CaCO3	4	110	110	0.00
Bicarbonate Alkalinity as HCO3	4	130	130	0.00
Chloride	1	32	32	0.00
Sulfate	1	86	85	1.17
Hardness as CaCO3	1	184	181	1.64
Organic Carbon, Dissolved (DOC)	0.5	3.4	3.4	0.00
Nitrogen, Ammonia	0.05	1.61	1.62	0.62
NO3+NO2 as N	0.02	1.92	1.97	2.57
N-Total	0.05	3.73	3.9	4.46
Phosphorus, Total as P	0.003	0.306	0.285	7.11
Aluminum, Dissolved	0.009	ND	ND	0.00
Antimony, Dissolved	0.0005	ND	ND	0.00
Arsenic, Dissolved	0.001	0.003	0.003	0.00
Barium, Dissolved	0.003	0.043	0.044	2.30
Beryllium, Dissolved	0.0008	ND	ND	0.00
Boron, Dissolved	0.1	ND	ND	0.00
Cadmium, Dissolved	0.00003	0.00007	0.00007	0.00
Chromium, Dissolved	0.01	ND	ND	0.00
Cobalt, Dissolved	0.01	ND	ND	0.00
Copper, Dissolved	0.001	0.009	0.009	0.00
Iron, Dissolved	0.02	0.06	0.07	15.38
Lead, Dissolved	0.0003	ND	ND	0.00
Manganese, Dissolved	0.001	0.288	0.289	0.35
Mercury, Dissolved	0.000005	ND	ND	0.00
Molybdenum, Dissolved	0.005	0.005	0.005	0.00
Nickel, Dissolved	0.002	ND	ND	0.00
Selenium, Dissolved	0.001	ND	ND	0.00
Silver, Dissolved	0.0002	ND	ND	0.00
Uranium, Dissolved	0.0002	0.0054	0.0054	0.00
Vanadium, Dissolved	0.1	ND	ND	0.00
Zinc, Dissolved	0.008	0.061	0.064	4.80
Aluminum, Total Recoverable	0.009	0.796	0.788	1.01
Antimony, Total Recoverable	0.0005	ND	ND	0.00
Arsenic, Total Recoverable	0.001	0.006	0.006	0.00
Barium, Total Recoverable	0.003	0.058	0.057	1.74
Beryllium, Total Recoverable	0.0008	ND	ND	0.00
Boron, Total Recoverable	0.1	ND	ND	0.00
Cadmium, Total Recoverable	0.00003	0.00055	0.00057	3.57

Calcium, Total Recoverable	1	52	52	0.00
Chromium, Total Recoverable	0.01	ND	ND	0.00
Cobalt, Total Recoverable	0.01	ND	ND	0.00
Copper, Total Recoverable	0.001	0.052	0.051	1.94
Iron, Total Recoverable	0.02	1.29	1.32	2.30
Lead, Total Recoverable	0.0003	0.0088	0.0089	1.13
Magnesium, Total Recoverable	1	13	13	0.00
Manganese, Total Recoverable	0.001	0.363	0.385	5.88
Mercury, Total Recoverable	0.000005	0.000027	0.000029	7.14
Molybdenum, Total Recoverable	0.005	0.005	0.006	18.18
Nickel, Total Recoverable	0.002	ND	ND	0.00
Potassium, Total Recoverable	1	6	6	0.00
Selenium, Total Recoverable	0.001	ND	ND	0.00
Silver, Total Recoverable	0.0002	ND	ND	0.00
Sodium, Total Recoverable	1	30	28	6.90
Uranium, Total Recoverable	0.0002	0.006	0.006	0.00
Vanadium, Total Recoverable	0.1	ND	ND	0.00
Zinc, Total Recoverable	0.008	0.141	0.143	1.41

ND	Not detected at analytical reporting limit.
-	Relative percent difference unknown because one or both of the concentrations was unknown (i.e., ND).
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). However, because both of the concentrations were <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A15. Analyte concentrations in the second quarter (May 7, 2015) groundwater field sample (H15050137-013) and field duplicate (H15050137-012) from site 1GW-1056 in the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
		H15050137-013	H15050137-012	
Alkalinity, Total as CaCO3	4	120	120	0.00
Bicarbonate Alkalinity as HCO3	4	140	140	0.00
Chloride	1	18	17	5.71
Sulfate	1	175	178	1.70
Hardness as CaCO3	1	242	242	0.00
Aluminum, Dissolved	0.009	ND	ND	0.00
Antimony, Dissolved	0.0005	ND	ND	0.00
Arsenic, Dissolved	0.001	0.007	0.007	0.00
Barium, Dissolved	0.003	0.03	0.035	15.38
Beryllium, Dissolved	0.0008	ND	ND	0.00
Boron, Dissolved	0.1	ND	ND	0.00
Cadmium, Dissolved	0.00003	ND	ND	0.00
Calcium, Dissolved	1	72	72	0.00
Chromium, Dissolved	0.01	ND	ND	0.00
Cobalt, Dissolved	0.01	ND	ND	0.00
Copper, Dissolved	0.001	ND	ND	0.00
Iron, Dissolved	0.02	ND	ND	0.00
Lead, Dissolved	0.0003	ND	ND	0.00
Magnesium, Dissolved	1	15	15	0.00
Manganese, Dissolved	0.001	ND	ND	0.00
Mercury, Dissolved	5E-06	0.000007	0.000007	0.00
Molybdenum, Dissolved	0.005	0.005	0.006	18.18
Nickel, Dissolved	0.002	ND	ND	0.00
Potassium, Dissolved	1	3	3	0.00
Selenium, Dissolved	0.001	0.004	0.004	0.00
Silver, Dissolved	0.0002	ND	ND	0.00
Sodium, Dissolved	1	27	27	0.00
Uranium, Dissolved	0.0002	0.0315	0.0316	0.32
Vanadium, Dissolved	0.1	ND	ND	0.00
Zinc, Dissolved	0.008	ND	ND	0.00

ND	Not detected at analytical reporting limit.
-	Relative percent difference unknown because one or both of the concentrations was unknown.
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). However, because both of the concentrations was <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A16. Analyte concentrations in the third quarter (September 15, 2015) groundwater field sample (H15090363-045) and field duplicate (H15090363-046) from site MW-2A in the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
		H15090363-045	H15090363-046	
Alkalinity, Total as CaCO3	4	130	130	0.00
Bicarbonate Alkalinity as HCO3	4	150	150	0.00
Chloride	1	4	4	0.00
Sulfate	1	205	209	1.93
Hardness as CaCO3	1	275	267	2.95
Aluminum, Dissolved	0.009	ND	ND	0.00
Antimony, Dissolved	0.0005	ND	ND	0.00
Arsenic, Dissolved	0.001	0.01	0.011	9.52
Barium, Dissolved	0.003	0.013	0.013	0.00
Beryllium, Dissolved	0.0008	ND	ND	0.00
Boron, Dissolved	0.1	ND	ND	0.00
Cadmium, Dissolved	0.00003	ND	ND	0.00
Calcium, Dissolved	1	89	86	3.43
Chromium, Dissolved	0.01	ND	ND	0.00
Cobalt, Dissolved	0.01	ND	ND	0.00
Copper, Dissolved	0.001	ND	ND	0.00
Iron, Dissolved	0.02	ND	ND	0.00
Lead, Dissolved	0.0003	ND	ND	0.00
Magnesium, Dissolved	1	13	12	8.00
Manganese, Dissolved	0.001	ND	ND	0.00
Mercury, Dissolved	5E-06	ND	ND	0.00
Molybdenum, Dissolved	0.005	0.008	0.008	0.00
Nickel, Dissolved	0.002	ND	ND	0.00
Potassium, Dissolved	1	4	4	0.00
Selenium, Dissolved	0.001	0.011	0.011	0.00
Silver, Dissolved	0.0002	ND	ND	0.00
Sodium, Dissolved	1	27	28	3.64
Uranium, Dissolved	0.0002	0.0418	0.0416	0.48
Vanadium, Dissolved	0.1	ND	ND	0.00
Zinc, Dissolved	0.008	ND	ND	0.00

ND	Not detected at analytical reporting limit.
-	Relative percent difference unknown because one or both of the concentrations was unknown.
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). However, because both of the concentrations was <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A17. Analyte concentrations in the third quarter (September 16, 2015) groundwater field sample (H15090363-035) and field duplicate (H15090363-041) from site GW-ST-WS in the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
		H15090363-035	H15090363-041	
Alkalinity, Total as CaCO3	4	24	25	4.08
Bicarbonate Alkalinity as HCO3	4	29	30	3.39
Chloride	1	35	35	0.00
Sulfate	1	90	90	0.00
Hardness as CaCO3	1	106	111	4.61
Aluminum, Dissolved	0.009	0.11	0.117	6.17
Antimony, Dissolved	0.0005	ND	ND	0.00
Arsenic, Dissolved	0.001	0.002	0.002	0.00
Barium, Dissolved	0.003	0.025	0.026	3.92
Beryllium, Dissolved	0.0008	ND	ND	0.00
Boron, Dissolved	0.1	ND	ND	0.00
Cadmium, Dissolved	0.00003	0.0241	0.024	0.42
Calcium, Dissolved	1	32	33	3.08
Chromium, Dissolved	0.01	ND	ND	0.00
Cobalt, Dissolved	0.01	ND	ND	0.00
Copper, Dissolved	0.001	0.133	0.134	0.75
Iron, Dissolved	0.02	ND	ND	0.00
Lead, Dissolved	0.0003	ND	ND	0.00
Magnesium, Dissolved	1	6	7	15.38
Manganese, Dissolved	0.001	2.15	2.2	2.30
Mercury, Dissolved	5E-06	ND	ND	0.00
Molybdenum, Dissolved	0.005	ND	ND	0.00
Nickel, Dissolved	0.002	0.013	0.013	0.00
Potassium, Dissolved	1	5	5	0.00
Selenium, Dissolved	0.001	ND	ND	0.00
Silver, Dissolved	0.0002	ND	ND	0.00
Sodium, Dissolved	1	21	21	0.00
Uranium, Dissolved	0.0002	0.0007	0.0007	0.00
Vanadium, Dissolved	0.1	ND	ND	0.00
Zinc, Dissolved	0.008	3.85	4.06	5.31

ND	Not detected at analytical reporting limit.
-	Relative percent difference unknown because one or both of the concentrations was unknown.
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). However, because both of the concentrations was <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A18. Analyte concentrations in the third quarter (September 17, 2015) groundwater field sample (H15090363-031) and field duplicate (H15090363-032) from site GW-FM-BG in the Streamside Tailings Operable Unit.

Analyte	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
		H15090363-031	H15090363-032	
Alkalinity, Total as CaCO3	4	36	36	0.00
Bicarbonate Alkalinity as HCO3	4	44	43	2.30
Chloride	1	21	21	0.00
Sulfate	1	104	103	0.97
Hardness as CaCO3	1	117	117	0.00
Aluminum, Dissolved	0.009	0.014	0.014	0.00
Antimony, Dissolved	0.0005	ND	ND	0.00
Arsenic, Dissolved	0.001	0.002	0.002	0.00
Barium, Dissolved	0.003	0.038	0.038	0.00
Beryllium, Dissolved	0.0008	ND	ND	0.00
Boron, Dissolved	0.1	ND	ND	0.00
Cadmium, Dissolved	0.00003	0.00041	0.00041	0.00
Calcium, Dissolved	1	35	35	0.00
Chromium, Dissolved	0.01	ND	ND	0.00
Cobalt, Dissolved	0.01	ND	ND	0.00
Copper, Dissolved	0.001	ND	ND	0.00
Iron, Dissolved	0.02	ND	ND	0.00
Lead, Dissolved	0.0003	ND	ND	0.00
Magnesium, Dissolved	1	7	7	0.00
Manganese, Dissolved	0.001	0.335	0.333	0.60
Mercury, Dissolved	5E-06	ND	0.000006	200.00
Molybdenum, Dissolved	0.005	ND	ND	0.00
Nickel, Dissolved	0.002	0.005	0.005	0.00
Potassium, Dissolved	1	5	5	0.00
Selenium, Dissolved	0.001	ND	ND	0.00
Silver, Dissolved	0.0002	ND	ND	0.00
Sodium, Dissolved	1	24	24	0.00
Uranium, Dissolved	0.0002	0.0002	0.0002	0.00
Vanadium, Dissolved	0.1	ND	ND	0.00
Zinc, Dissolved	0.008	ND	0.009	200.00

ND	Not detected at analytical reporting limit.
-	Relative percent difference unknown because one or both of the concentrations was unknown.
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.
	Relative percent difference of sample and duplicate pair exceeds project goal (25%). However, because both of the concentrations was <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A19. Analyte concentrations in the first quarter (March 27, 2015) instream sediment field sample (H15030394-026-028) and field duplicate (H15030394-029-031) from site SS-10A in the Streamside Tailings Operable Unit.

Analyte	Size fraction (mm)	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
			H15030394-026-028	H15030394-029-031	
Aluminum, Total	<0.065	8	33500	27100	21.1
Antimony, Total	<0.065	5	ND	ND	0.0
Arsenic, Total	<0.065	5	39	33	16.7
Barium, Total	<0.065	5	384	282	30.6
Beryllium, Total	<0.065	5	ND	ND	0.0
Boron, Total	<0.065	5	12	10	18.2
Cadmium, Total	<0.065	2	9	7	25.0
Chromium, Total	<0.065	5	26	23	12.2
Cobalt, Total	<0.065	5	13	11	16.7
Copper, Total	<0.065	5	552	421	26.9
Iron, Total	<0.065	7	29000	23000	23.1
Lead, Total	<0.065	5	234	200	15.7
Manganese, Total	<0.065	5	2370	2160	9.3
Mercury, Total	<0.065	0.10	0.87	0.86	1.2
Molybdenum, Total	<0.065	5	7	5	33.3
Nickel, Total	<0.065	5	15	13	14.3
Selenium, Total	<0.065	5	ND	ND	0.0
Silver, Total	<0.065	5	ND	ND	0.0
Uranium, Total	<0.065	5	6	5	18.2
Vanadium, Total	<0.065	2	46	33	32.9
Zinc, Total	<0.065	5	1490	1210	20.7
Aluminum, Total	0.065-1	6	16600	17000	2.4
Antimony, Total	0.065-1	5	ND	ND	0.0
Arsenic, Total	0.065-1	5	17	16	6.1
Barium, Total	0.065-1	5	231	239	3.4
Beryllium, Total	0.065-1	5	ND	ND	0.0
Boron, Total	0.065-1	5	ND	ND	0.0
Cadmium, Total	0.065-1	0.3	3.1	3.5	12.1
Chromium, Total	0.065-1	5	11	12	8.7
Cobalt, Total	0.065-1	5	8	7	13.3
Copper, Total	0.065-1	5	154	208	29.8
Iron, Total	0.065-1	5	19900	21700	8.7
Lead, Total	0.065-1	5	86	100	15.1
Manganese, Total	0.065-1	5	1170	1320	12.0
Mercury, Total	0.065-1	0.10	0.33	0.29	12.9
Molybdenum, Total	0.065-1	5	ND	ND	0.0
Nickel, Total	0.065-1	5	ND	5	0.0
Selenium, Total	0.065-1	5	ND	ND	0.0
Silver, Total	0.065-1	5	ND	ND	0.0
Uranium, Total	0.065-1	5	ND	ND	0.0

Vanadium, Total	0.065-1	1	41	48	15.7
Zinc, Total	0.065-1	5	453	616	30.5
Aluminum, Total	1-2	6	33500	17800	61.2
Antimony, Total	1-2	5	ND	ND	0.0
Arsenic, Total	1-2	5	16	9	56.0
Barium, Total	1-2	5	312	178	54.7
Beryllium, Total	1-2	5	ND	ND	0.0
Boron, Total	1-2	5	6	ND	200.0
Cadmium, Total	1-2	1	2	0.9	75.9
Chromium, Total	1-2	5	8	6	28.6
Cobalt, Total	1-2	5	9	ND	200.0
Copper, Total	1-2	5	91	53	52.8
Iron, Total	1-2	5	22300	13000	52.7
Lead, Total	1-2	5	83	34	83.8
Manganese, Total	1-2	5	2160	961	76.8
Mercury, Total	1-2	0.10	ND	0.28	200.0
Molybdenum, Total	1-2	5	ND	ND	0.0
Nickel, Total	1-2	5	ND	ND	0.0
Selenium, Total	1-2	5	ND	ND	0.0
Silver, Total	1-2	5	ND	ND	0.0
Uranium, Total	1-2	5	ND	ND	0.0
Vanadium, Total	1-2	1	25	15	50.0
Zinc, Total	1-2	5	462	208	75.8

ND — Not detected at analytical reporting limit.

\- — Relative percent difference unknown because one or both of the concentrations was unknown.

Relative percent difference of sample and duplicate pair exceeds project goal (40%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.

Relative percent difference of sample and duplicate pair exceeds project goal (40%). However, because both of the concentrations were <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A20. Analyte concentrations in the first quarter (March 27, 2015) instream sediment field sample (H15030394-026-028) and field duplicate (H15030394-032-034) from site SS-10A in the Streamside Tailings Operable Unit.

Analyte	Size fraction (mm)	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
			H15030394-026-028	H15030394-032-034	
Aluminum, Total	<0.065	8	33500	29700	12.0
Antimony, Total	<0.065	5	ND	ND	0.0
Arsenic, Total	<0.065	5	39	49	22.7
Barium, Total	<0.065	5	384	356	7.6
Beryllium, Total	<0.065	5	ND	ND	0.0
Boron, Total	<0.065	5	12	12	0.0
Cadmium, Total	<0.065	2	9	12	28.6
Chromium, Total	<0.065	5	26	27	3.8
Cobalt, Total	<0.065	5	13	16	20.7
Copper, Total	<0.065	5	552	644	15.4
Iron, Total	<0.065	7	29000	28400	2.1
Lead, Total	<0.065	5	234	368	44.5
Manganese, Total	<0.065	5	2370	2690	12.6
Mercury, Total	<0.065	0.10	0.87	0.95	8.8
Molybdenum, Total	<0.065	5	7	8	13.3
Nickel, Total	<0.065	5	15	15	0.0
Selenium, Total	<0.065	5	ND	ND	0.0
Silver, Total	<0.065	5	ND	ND	0.0
Uranium, Total	<0.065	5	6	7	15.4
Vanadium, Total	<0.065	2	46	50	8.3
Zinc, Total	<0.065	5	1490	1990	28.7
Aluminum, Total	0.065-1	6	16600	18500	10.8
Antimony, Total	0.065-1	5	ND	ND	0.0
Arsenic, Total	0.065-1	5	17	17	0.0
Barium, Total	0.065-1	5	231	238	3.0
Beryllium, Total	0.065-1	5	ND	ND	0.0
Boron, Total	0.065-1	5	ND	5	0.0
Cadmium, Total	0.065-1	0.3	3.1	3.2	3.2
Chromium, Total	0.065-1	5	11	10	9.5
Cobalt, Total	0.065-1	5	8	7	13.3
Copper, Total	0.065-1	5	154	190	20.9
Iron, Total	0.065-1	5	19900	18600	6.8
Lead, Total	0.065-1	5	86	114	28.0
Manganese, Total	0.065-1	5	1170	1220	4.2
Mercury, Total	0.065-1	0.10	0.33	0.39	16.7
Molybdenum, Total	0.065-1	5	ND	ND	0.0
Nickel, Total	0.065-1	5	ND	ND	0.0
Selenium, Total	0.065-1	5	ND	ND	0.0
Silver, Total	0.065-1	5	ND	ND	0.0
Uranium, Total	0.065-1	5	ND	ND	0.0

Vanadium, Total	0.065-1	1	41	34	18.7
Zinc, Total	0.065-1	5	453	557	20.6
Aluminum, Total	1-2	6	33500	27800	18.6
Antimony, Total	1-2	5	ND	ND	0.0
Arsenic, Total	1-2	5	16	17	6.1
Barium, Total	1-2	5	312	274	13.0
Beryllium, Total	1-2	5	ND	ND	0.0
Boron, Total	1-2	5	6	6	0.0
Cadmium, Total	1-2	1	2	1.5	28.6
Chromium, Total	1-2	5	8	6	28.6
Cobalt, Total	1-2	5	9	7	25.0
Copper, Total	1-2	5	91	97	6.4
Iron, Total	1-2	5	22300	19000	16.0
Lead, Total	1-2	5	83	37	76.7
Manganese, Total	1-2	5	2160	1410	42.0
Mercury, Total	1-2	0.10	ND	0.38	200.0
Molybdenum, Total	1-2	5	ND	ND	0.0
Nickel, Total	1-2	5	ND	ND	0.0
Selenium, Total	1-2	5	ND	ND	0.0
Silver, Total	1-2	5	ND	ND	0.0
Uranium, Total	1-2	5	ND	ND	0.0
Vanadium, Total	1-2	1	25	18	32.6
Zinc, Total	1-2	5	462	284	47.7

ND Not detected at analytical reporting limit.

- Relative percent difference unknown because one or both of the concentrations was unknown.

Relative percent difference of sample and duplicate pair exceeds project goal (40%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.

Relative percent difference of sample and duplicate pair exceeds project goal (40%). However, because both of the concentrations were <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A21. Analyte concentrations in the second quarter (May 14, 2015) instream sediment field sample (H15050235-049-051) and field duplicate (H15050235-052-054) from site SS-15A in the Streamside Tailings Operable Unit.

Analyte	Size fraction (mm)	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
			H15050235-019-021	H15050235-022-024	
Aluminum, Total	<0.065	9	20600	23900	14.8
Antimony, Total	<0.065	5	ND	ND	0.0
Arsenic, Total	<0.065	5	69	67	2.9
Barium, Total	<0.065	5	438	487	10.6
Beryllium, Total	<0.065	5	ND	ND	0.0
Boron, Total	<0.065	5	9	12	28.6
Cadmium, Total	<0.065	0.5	9.6	9.3	3.2
Chromium, Total	<0.065	5	25	30	18.2
Cobalt, Total	<0.065	5	12	13	8.0
Copper, Total	<0.065	5	802	843	5.0
Iron, Total	<0.065	10	23800	27000	12.6
Lead, Total	<0.065	5	230	287	22.1
Manganese, Total	<0.065	5	3080	3120	1.3
Mercury, Total	<0.065	0.10	1.2	1	18.2
Molybdenum, Total	<0.065	5	ND	ND	0.0
Nickel, Total	<0.065	5	16	18	11.8
Selenium, Total	<0.065	5	ND	ND	0.0
Silver, Total	<0.065	5	ND	ND	0.0
Uranium, Total	<0.065	5	ND	ND	0.0
Vanadium, Total	<0.065	1	45	53	16.3
Zinc, Total	<0.065	5	2190	2240	2.3
Aluminum, Total	0.065-1	5	8570	6990	20.3
Antimony, Total	0.065-1	5	ND	ND	0.0
Arsenic, Total	0.065-1	5	90	47	62.8
Barium, Total	0.065-1	5	227	167	30.5
Beryllium, Total	0.065-1	5	ND	ND	0.0
Boron, Total	0.065-1	5	ND	ND	0.0
Cadmium, Total	0.065-1	0.2	4	2.1	62.3
Chromium, Total	0.065-1	5	17	14	19.4
Cobalt, Total	0.065-1	5	6	5	18.2
Copper, Total	0.065-1	5	476	271	54.9
Iron, Total	0.065-1	7	26200	19600	28.8
Lead, Total	0.065-1	5	168	129	26.3
Manganese, Total	0.065-1	5	1100	807	30.7
Mercury, Total	0.065-1	0.10	0.41	0.35	15.8
Molybdenum, Total	0.065-1	5	ND	ND	0.0
Nickel, Total	0.065-1	5	8	7	13.3
Selenium, Total	0.065-1	5	ND	ND	0.0
Silver, Total	0.065-1	5	ND	ND	0.0
Uranium, Total	0.065-1	5	ND	ND	0.0

Vanadium, Total	0.065-1	1	56	40	33.3
Zinc, Total	0.065-1	5	1860	708	89.7
Aluminum, Total	1-2	5	4130	4100	0.7
Antimony, Total	1-2	5	ND	ND	0.0
Arsenic, Total	1-2	5	72	55	26.8
Barium, Total	1-2	5	85	156	58.9
Beryllium, Total	1-2	5	ND	ND	0.0
Boron, Total	1-2	5	ND	ND	0.0
Cadmium, Total	1-2	0.2	1.3	1.7	26.7
Chromium, Total	1-2	5	12	22	58.8
Cobalt, Total	1-2	5	5	ND	200.0
Copper, Total	1-2	5	427	229	60.4
Iron, Total	1-2	6	16700	13500	21.2
Lead, Total	1-2	5	134	58	79.2
Manganese, Total	1-2	5	457	430	6.1
Mercury, Total	1-2	0.10	0.31	ND	200.0
Molybdenum, Total	1-2	5	ND	ND	0.0
Nickel, Total	1-2	5	6	8	28.6
Selenium, Total	1-2	5	ND	ND	0.0
Silver, Total	1-2	5	ND	ND	0.0
Uranium, Total	1-2	5	ND	ND	0.0
Vanadium, Total	1-2	1	18	21	15.4
Zinc, Total	1-2	5	505	730	36.4

ND Not detected at analytical reporting limit.

- Relative percent difference unknown because one or both of the concentrations was unknown.

Relative percent difference of sample and duplicate pair exceeds project goal (40%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.

Relative percent difference of sample and duplicate pair exceeds project goal (40%). However, because both of the concentrations were <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A22. Analyte concentrations in the second quarter (May 15, 2015) instream sediment field sample (H15050235-019-021) and field duplicate (H15050235-022-024) from site SS-06G in the Streamside Tailings Operable Unit.

Analyte	Size fraction (mm)	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
			H15050235-019-021	H15050235-022-024	
Aluminum, Total	<0.065	9	19800	18600	6.3
Antimony, Total	<0.065	5	ND	ND	0.0
Arsenic, Total	<0.065	5	80	81	1.2
Barium, Total	<0.065	5	351	351	0.0
Beryllium, Total	<0.065	5	ND	ND	0.0
Boron, Total	<0.065	5	13	9	36.4
Cadmium, Total	<0.065	0.4	7.4	8.3	11.5
Chromium, Total	<0.065	5	46	54	16.0
Cobalt, Total	<0.065	5	16	16	0.0
Copper, Total	<0.065	5	732	759	3.6
Iron, Total	<0.065	10	35500	33100	7.0
Lead, Total	<0.065	5	319	326	2.2
Manganese, Total	<0.065	5	5020	5610	11.1
Mercury, Total	<0.065	0.10	0.6	1	50.0
Molybdenum, Total	<0.065	5	20	14	35.3
Nickel, Total	<0.065	5	23	29	23.1
Selenium, Total	<0.065	5	ND	ND	0.0
Silver, Total	<0.065	5	ND	5	200.0
Uranium, Total	<0.065	5	6	5	18.2
Vanadium, Total	<0.065	1	86	80	7.2
Zinc, Total	<0.065	5	2000	2100	4.9
Aluminum, Total	0.065-1	5	5510	6120	10.5
Antimony, Total	0.065-1	5	ND	ND	0.0
Arsenic, Total	0.065-1	5	23	24	4.3
Barium, Total	0.065-1	5	113	123	8.5
Beryllium, Total	0.065-1	5	ND	ND	0.0
Boron, Total	0.065-1	5	ND	ND	0.0
Cadmium, Total	0.065-1	0.2	1.4	1.5	6.9
Chromium, Total	0.065-1	5	11	11	0.0
Cobalt, Total	0.065-1	5	5	6	18.2
Copper, Total	0.065-1	5	171	156	9.2
Iron, Total	0.065-1	7	14900	15400	3.3
Lead, Total	0.065-1	5	91	78	15.4
Manganese, Total	0.065-1	5	1110	1270	13.4
Mercury, Total	0.065-1	0.10	0.17	0.7	121.8
Molybdenum, Total	0.065-1	5	ND	ND	0.0
Nickel, Total	0.065-1	5	ND	6	200.0
Selenium, Total	0.065-1	5	ND	ND	0.0
Silver, Total	0.065-1	5	ND	ND	0.0
Uranium, Total	0.065-1	5	ND	ND	0.0

Vanadium, Total	0.065-1	1	32	32	0.0
Zinc, Total	0.065-1	5	622	643	3.3
Aluminum, Total	1-2	5	3510	3770	7.1
Antimony, Total	1-2	5	ND	ND	0.0
Arsenic, Total	1-2	5	17	20	16.2
Barium, Total	1-2	5	102	103	1.0
Beryllium, Total	1-2	5	ND	ND	0.0
Boron, Total	1-2	5	ND	ND	0.0
Cadmium, Total	1-2	0.2	0.5	0.4	22.2
Chromium, Total	1-2	5	6	5	18.2
Cobalt, Total	1-2	5	ND	ND	0.0
Copper, Total	1-2	5	93	99	6.3
Iron, Total	1-2	6	6960	8360	18.3
Lead, Total	1-2	5	44	37	17.3
Manganese, Total	1-2	5	972	1000	2.8
Mercury, Total	1-2	0.10	ND	ND	0.0
Molybdenum, Total	1-2	5	ND	ND	0.0
Nickel, Total	1-2	5	ND	ND	0.0
Selenium, Total	1-2	5	ND	ND	0.0
Silver, Total	1-2	5	ND	ND	0.0
Uranium, Total	1-2	5	ND	ND	0.0
Vanadium, Total	1-2	1	18	18	0.0
Zinc, Total	1-2	5	216	212	1.9

ND	Not detected at analytical reporting limit.
-	Relative percent difference unknown because one or both of the concentrations was unknown.
	Relative percent difference of sample and duplicate pair exceeds project goal (40%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.
	Relative percent difference of sample and duplicate pair exceeds project goal (40%). However, because both of the concentrations were <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A23. Analyte concentrations in the third quarter (September 9, 2015) instream sediment field sample (H15090206-046-051) and field duplicate (H15090206-049-051) from site SS-14 in the Streamside Tailings Operable Unit.

Analyte	Size fraction (mm)	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
			H15090206-046-048	H15090206-049-051	
Aluminum, Total	<0.065	10	27500	17800	42.8
Antimony, Total	<0.065	5	ND	ND	0.0
Arsenic, Total	<0.065	5	31	24	25.5
Barium, Total	<0.065	5	459	331	32.4
Beryllium, Total	<0.065	5	ND	ND	0.0
Boron, Total	<0.065	6	12	9	28.6
Cadmium, Total	<0.065	0.5	8.1	7.2	11.8
Chromium, Total	<0.065	5	37	24	42.6
Cobalt, Total	<0.065	5	12	9	28.6
Copper, Total	<0.065	5	463	350	27.8
Iron, Total	<0.065	8	28500	20900	30.8
Lead, Total	<0.065	5	241	146	49.1
Manganese, Total	<0.065	5	2780	2810	1.1
Mercury, Total	<0.065	0.10	0.58	0.54	7.1
Molybdenum, Total	<0.065	5	ND	ND	0.0
Nickel, Total	<0.065	5	22	13	51.4
Selenium, Total	<0.065	5	ND	ND	0.0
Silver, Total	<0.065	5	ND	ND	0.0
Uranium, Total	<0.065	5	ND	ND	0.0
Vanadium, Total	<0.065	2	60	45	28.6
Zinc, Total	<0.065	5	1760	1440	20.0
Aluminum, Total	0.065-1	5	5790	5950	2.7
Antimony, Total	0.065-1	5	ND	ND	0.0
Arsenic, Total	0.065-1	5	7	6	15.4
Barium, Total	0.065-1	5	152	180	16.9
Beryllium, Total	0.065-1	5	ND	ND	0.0
Boron, Total	0.065-1	5	ND	ND	0.0
Cadmium, Total	0.065-1	0.2	0.8	0.6	28.6
Chromium, Total	0.065-1	5	13	12	8.0
Cobalt, Total	0.065-1	5	ND	ND	0.0
Copper, Total	0.065-1	5	44	69	44.2
Iron, Total	0.065-1	5	14500	13100	10.1
Lead, Total	0.065-1	5	42	15	94.7
Manganese, Total	0.065-1	5	741	421	55.1
Mercury, Total	0.065-1	0.10	ND	0.12	200.0
Molybdenum, Total	0.065-1	5	ND	ND	0.0
Nickel, Total	0.065-1	5	ND	5	200.0
Selenium, Total	0.065-1	5	ND	ND	0.0
Silver, Total	0.065-1	5	ND	ND	0.0
Uranium, Total	0.065-1	5	ND	ND	0.0

Vanadium, Total	0.065-1	1	38	33	14.1
Zinc, Total	0.065-1	5	200	180	10.5
Aluminum, Total	1-2	5	4770	6340	28.3
Antimony, Total	1-2	5	ND	ND	0.0
Arsenic, Total	1-2	5	6	198	188.2
Barium, Total	1-2	5	131	269	69.0
Beryllium, Total	1-2	5	ND	ND	0.0
Boron, Total	1-2	5	ND	ND	0.0
Cadmium, Total	1-2	0.2	0.4	0.8	66.7
Chromium, Total	1-2	5	7	10	35.3
Cobalt, Total	1-2	5	ND	ND	0.0
Copper, Total	1-2	5	25	404	176.7
Iron, Total	1-2	5	6360	8240	25.8
Lead, Total	1-2	5	18	374	181.6
Manganese, Total	1-2	5	376	637	51.5
Mercury, Total	1-2	0.10	0.19	ND	200.0
Molybdenum, Total	1-2	5	ND	ND	0.0
Nickel, Total	1-2	5	ND	ND	0.0
Selenium, Total	1-2	5	ND	ND	0.0
Silver, Total	1-2	5	ND	ND	0.0
Uranium, Total	1-2	5	ND	ND	0.0
Vanadium, Total	1-2	1	13	15	14.3
Zinc, Total	1-2	5	127	162	24.2

ND Not detected at analytical reporting limit.

\- Relative percent difference unknown because one or both of the concentrations was unknown.

Relative percent difference of sample and duplicate pair exceeds project goal (40%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.

Relative percent difference of sample and duplicate pair exceeds project goal (40%). However, because both of the concentrations were <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A24. Analyte concentrations in the third quarter (September 9, 2015) instream sediment field sample (H15090206-028-030) and field duplicate (H15090206-031-033) from site SS-10A in the Streamside Tailings Operable Unit.

Analyte	Size fraction (mm)	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
			H15090206-028-030	H15090206-031-033	
Aluminum, Total	<0.065	10	36500	38300	4.8
Antimony, Total	<0.065	5	ND	ND	0.0
Arsenic, Total	<0.065	5	36	25	36.1
Barium, Total	<0.065	5	298	247	18.7
Beryllium, Total	<0.065	5	ND	ND	0.0
Boron, Total	<0.065	8	12	11	8.7
Cadmium, Total	<0.065	0.6	5.9	3.3	56.5
Chromium, Total	<0.065	5	24	22	8.7
Cobalt, Total	<0.065	5	12	12	0.0
Copper, Total	<0.065	5	507	252	67.2
Iron, Total	<0.065	10	37900	36600	3.5
Lead, Total	<0.065	5	175	118	38.9
Manganese, Total	<0.065	5	1250	1010	21.2
Mercury, Total	<0.065	0.10	0.64	0.34	61.2
Molybdenum, Total	<0.065	5	6	ND	200.0
Nickel, Total	<0.065	5	12	10	18.2
Selenium, Total	<0.065	5	ND	ND	0.0
Silver, Total	<0.065	5	ND	ND	0.0
Uranium, Total	<0.065	5	7	ND	200.0
Vanadium, Total	<0.065	3	61	59	3.3
Zinc, Total	<0.065	5	1580	1290	20.2
Aluminum, Total	0.065-1	5	9840	8620	13.2
Antimony, Total	0.065-1	5	ND	ND	0.0
Arsenic, Total	0.065-1	5	8	ND	200.0
Barium, Total	0.065-1	5	115	96	18.0
Beryllium, Total	0.065-1	5	ND	ND	0.0
Boron, Total	0.065-1	5	ND	ND	0.0
Cadmium, Total	0.065-1	0.2	2	1.2	50.0
Chromium, Total	0.065-1	5	14	13	7.4
Cobalt, Total	0.065-1	5	ND	ND	0.0
Copper, Total	0.065-1	5	114	79	36.3
Iron, Total	0.065-1	5	23200	21600	7.1
Lead, Total	0.065-1	5	32	15	72.3
Manganese, Total	0.065-1	5	369	267	32.1
Mercury, Total	0.065-1	0.10	0.16	ND	200.0
Molybdenum, Total	0.065-1	5	ND	ND	0.0
Nickel, Total	0.065-1	5	ND	ND	0.0
Selenium, Total	0.065-1	5	ND	ND	0.0
Silver, Total	0.065-1	5	ND	ND	0.0
Uranium, Total	0.065-1	5	ND	ND	0.0

Vanadium, Total	0.065-1	1	61	59	3.3
Zinc, Total	0.065-1	5	298	196	41.3
Aluminum, Total	1-2	5	12600	13300	5.4
Antimony, Total	1-2	5	ND	ND	0.0
Arsenic, Total	1-2	5	6	ND	200.0
Barium, Total	1-2	5	68	55	21.1
Beryllium, Total	1-2	5	ND	ND	0.0
Boron, Total	1-2	5	ND	ND	0.0
Cadmium, Total	1-2	0.2	0.6	0.3	66.7
Chromium, Total	1-2	5	ND	ND	0.0
Cobalt, Total	1-2	5	ND	ND	0.0
Copper, Total	1-2	5	52	37	33.7
Iron, Total	1-2	5	10600	10900	2.8
Lead, Total	1-2	5	10	8	22.2
Manganese, Total	1-2	5	325	299	8.3
Mercury, Total	1-2	0.10	ND	ND	0.0
Molybdenum, Total	1-2	5	ND	ND	0.0
Nickel, Total	1-2	5	ND	ND	0.0
Selenium, Total	1-2	5	ND	ND	0.0
Silver, Total	1-2	5	ND	ND	0.0
Uranium, Total	1-2	5	ND	ND	0.0
Vanadium, Total	1-2	1	13	14	7.4
Zinc, Total	1-2	5	121	94	25.1

ND Not detected at analytical reporting limit.

- Relative percent difference unknown because one or both of the concentrations was unknown.

Relative percent difference of sample and duplicate pair exceeds project goal (40%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.

Relative percent difference of sample and duplicate pair exceeds project goal (40%). However, because both of the concentrations were <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

Table A25. Analyte concentrations in the fourth quarter (December 4, 2015) instream sediment field sample (H15120093-031-033) and field duplicate (H15120093-034-036) from site SS-10B in the Streamside Tailings Operable Unit.

Analyte	Size fraction (mm)	Reporting limit (mg/L)	Concentration (mg/L)		Relative percent difference (%)
			H15120093-031-033	H15120093-034-036	
Aluminum, Total	<0.065	10	20900	26000	21.7
Antimony, Total	<0.065	5	ND	ND	0.0
Arsenic, Total	<0.065	5	39	38	2.6
Barium, Total	<0.065	5	325	418	25.0
Beryllium, Total	<0.065	5	ND	ND	0.0
Boron, Total	<0.065	7	14	13	7.4
Cadmium, Total	<0.065	0.6	8.2	7.6	7.6
Chromium, Total	<0.065	5	20	28	33.3
Cobalt, Total	<0.065	5	11	13	16.7
Copper, Total	<0.065	5	665	596	10.9
Iron, Total	<0.065	10	23700	27100	13.4
Lead, Total	<0.065	5	182	179	1.7
Manganese, Total	<0.065	5	1720	2490	36.6
Mercury, Total	<0.065	0.10	1	0.85	16.2
Molybdenum, Total	<0.065	5	8	8	0.0
Nickel, Total	<0.065	5	14	17	19.4
Selenium, Total	<0.065	5	ND	ND	0.0
Silver, Total	<0.065	5	ND	ND	0.0
Uranium, Total	<0.065	5	8	6	28.6
Vanadium, Total	<0.065	2	41	39	5.0
Zinc, Total	<0.065	5	1750	1670	4.7
Aluminum, Total	0.065-1	6	9340	11600	21.6
Antimony, Total	0.065-1	5	ND	ND	0.0
Arsenic, Total	0.065-1	5	8	29	113.5
Barium, Total	0.065-1	5	133	246	59.6
Beryllium, Total	0.065-1	5	ND	ND	0.0
Boron, Total	0.065-1	5	ND	8	200.0
Cadmium, Total	0.065-1	0.3	3	4.3	35.6
Chromium, Total	0.065-1	5	11	15	30.8
Cobalt, Total	0.065-1	5	ND	7	200.0
Copper, Total	0.065-1	5	167	262	44.3
Iron, Total	0.065-1	5	19200	22900	17.6
Lead, Total	0.065-1	5	39	89	78.1
Manganese, Total	0.065-1	5	556	1020	58.9
Mercury, Total	0.065-1	0.10	0.19	0.32	51.0
Molybdenum, Total	0.065-1	5	ND	ND	0.0
Nickel, Total	0.065-1	5	ND	7	200.0
Selenium, Total	0.065-1	5	ND	ND	0.0
Silver, Total	0.065-1	5	ND	ND	0.0
Uranium, Total	0.065-1	5	11	ND	200.0

Vanadium, Total	0.065-1	1	45	49	8.5
Zinc, Total	0.065-1	5	459	695	40.9
Aluminum, Total	1-2	5	6150	5760	6.5
Antimony, Total	1-2	5	ND	ND	0.0
Arsenic, Total	1-2	5	30	ND	200.0
Barium, Total	1-2	5	85	82	3.6
Beryllium, Total	1-2	5	ND	ND	0.0
Boron, Total	1-2	5	ND	ND	0.0
Cadmium, Total	1-2	0.2	1.1	0.6	58.8
Chromium, Total	1-2	5	ND	ND	0.0
Cobalt, Total	1-2	5	ND	ND	0.0
Copper, Total	1-2	5	113	27	122.9
Iron, Total	1-2	5	5970	6880	14.2
Lead, Total	1-2	5	28	9	102.7
Manganese, Total	1-2	5	510	420	19.4
Mercury, Total	1-2	0.10	ND	ND	0.0
Molybdenum, Total	1-2	5	ND	ND	0.0
Nickel, Total	1-2	5	ND	ND	0.0
Selenium, Total	1-2	5	ND	ND	0.0
Silver, Total	1-2	5	ND	ND	0.0
Uranium, Total	1-2	5	ND	ND	0.0
Vanadium, Total	1-2	1	8	10	22.2
Zinc, Total	1-2	20	230	114	67.4

ND Not detected at analytical reporting limit.

- Relative percent difference unknown because one or both of the concentrations was unknown.

Relative percent difference of sample and duplicate pair exceeds project goal (40%). We recommend "J-flagging" all analyte concentrations (which are >5 times the reporting limit) from this date in the project database.

Relative percent difference of sample and duplicate pair exceeds project goal (40%). However, because both of the concentrations were <5 times the reporting limit we do not recommend "J-flagging" any analytes in the project database.

APPENDIX B

ANALYTICAL LABORATORY RESULTS

APPENDIX B1

ANALYTICAL LABORATORY RESULTS
1ST QUARTER MONITORING

ANALYTICAL SUMMARY REPORT

April 29, 2015

Natural Resource Damage Program
1301 E Lockey
Helena, MT 59620-1425

Work Order: H15030393 Quote ID: H1088 - Silver Bow Monitoring

Project Name: Silver Bow Creek Monitoring

Energy Laboratories Inc Helena MT received the following 14 samples for Natural Resource Damage Program on 3/30/2015 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H15030393-001	SS-01	03/27/15 18:00	03/30/15	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Carbon, Dissolved Organic Conductivity Mercury, Dissolved Mercury, Total Recoverable Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Nitrogen, Total Persulfate Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Digestion, Total P Water Nitrogen, Total Persulfate Phosphorus, Total Solids, Total Suspended Solids, Suspended Volatile
H15030393-002	Field Duplicate 2 (SS-01)	03/27/15 18:00	03/30/15	Aqueous	Same As Above
H15030393-003	Field Blank 2	03/27/15 17:00	03/30/15	Aqueous	Same As Above
H15030393-004	SS-05A	03/27/15 16:00	03/30/15	Aqueous	Same As Above
H15030393-005	SS-15G	03/26/15 14:00	03/30/15	Aqueous	Same As Above
H15030393-006	SS-01 Sediment Sieve <0.065mm	03/27/15 18:00	03/30/15	Sediment	Metals by ICP/ICPMS, Total Mercury in Solid By CVAA Percent Moisture Digestion, Total Metals Digestion, Mercury by CVAA Sieves Soil Preparation
H15030393-007	SS-01 Sediment Sieve 1mm-0.063	03/27/15 18:00	03/30/15	Sediment	Metals by ICP/ICPMS, Total Mercury in Solid By CVAA Percent Moisture Digestion, Total Metals Digestion, Mercury by CVAA Sieves
H15030393-008	SS-01 Sediment Sieve 2mm-1mm	03/27/15 18:00	03/30/15	Sediment	Same As Above
H15030393-009	SS-05A Sediment Sieve <0.065mm	03/27/15 16:00	03/30/15	Sediment	Same As Above
H15030393-010	SS-05A Sediment Sieve 1mm-0.063mm	03/27/15 16:00	03/30/15	Sediment	Same As Above

ANALYTICAL SUMMARY REPORT

H15030393-011	SS-05A Sediment Sieve 2mm-1mm	03/27/15 16:00	03/30/15	Sediment	Same As Above
H15030393-012	SS-15G Sediment Sieve <0.065mm	03/26/15 14:00	03/30/15	Sediment	Same As Above
H15030393-013	SS-15G Sediment Sieve 1mm-0.063mm	03/26/15 14:00	03/30/15	Sediment	Same As Above
H15030393-014	SS-15G Sediment Sieve 2mm-1mm	03/26/15 14:00	03/30/15	Sediment	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Natural Resource Damage Program
Project: Silver Bow Creek Monitoring
Work Order: H15030393

Revised Date: 04/29/15
Report Date: 04/24/15

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

Per email request from J.Naughton on 4/27/15, the reporting limits were updated for Volatile Suspended Solids (VSS), Total Phosphorous and Nitrate + Nitrite. The reporting limit was changed for VSS from 10 mg/L to 1mg/L. The Total Phosphorous was changed from 0.005 mg/L to 0.003 mg/L and Nitrate + Nitrite was updated from 0.05 mg/L to 0.02 mg/L. The analytical data was reviewed and the reporting limits were updated for all parameters. abb 4/29/15

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01
Lab ID: H15030393-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 18:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Conductivity @ 25 C	244	umhos/cm		1		A2510 B	03/31/15 09:39 / SR		PHSC_101-H_150331A	8	R105121
Solids, Total Suspended TSS @ 105 C	9	mg/L		1		A2540 D	03/30/15 15:21 / SR		L24 (14410200)_150330A	10	TSS150330A
Solids, Volatile Suspended	3	mg/L		1		A2540 E	03/31/15 10:16 / SR		MISC WC_150331A	2	150331A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	80	mg/L		4		A2320 B	04/01/15 09:21 / SR		PHSC_101-H_150401A	9	R105152
Bicarbonate as HCO3	97	mg/L		4		A2320 B	04/01/15 09:21 / SR		PHSC_101-H_150401A	9	R105152
Chloride	10	mg/L		1		E300.0	03/31/15 11:53 / SR		IC102-H_150331A	21	R105153
Sulfate	18	mg/L		1		E300.0	03/31/15 11:53 / SR		IC102-H_150331A	21	R105153
Hardness as CaCO3	94	mg/L		1		A2340 B	03/31/15 10:18 / abb		CALC_150402A	25	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.4	mg/L		0.5		A5310 C	04/02/15 02:22 / eli-c		SUB-C197799	3	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	04/01/15 10:31 / cm		FIA203-HE_150401B	16	R105171
Nitrogen, Nitrate+Nitrite as N	0.39	mg/L		0.02		E353.2	03/31/15 15:01 / cm		FIA203-HE_150331C	72	R105150
Nitrogen, Total	0.66	mg/L		0.05		A4500 N-C	04/01/15 07:59 / cm	03/31/15 09:25	FIA203-HE_150401A	13	28542
Phosphorus, Total as P	0.083	mg/L		0.003		E365.1	04/01/15 07:57 / cm	03/31/15 14:02	FIA202-HE_150401A	14	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Antimony	ND	mg/L		0.0005		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Arsenic	0.003	mg/L		0.001		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Barium	0.039	mg/L		0.003		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Beryllium	ND	mg/L		0.0008		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Boron	ND	mg/L		0.1		E200.7	03/31/15 10:18 / sld		ICP2-HE_150331B	15	R105154
Cadmium	ND	mg/L		0.00003		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Calcium	27	mg/L		1		E200.7	03/31/15 10:18 / sld		ICP2-HE_150331B	15	R105154
Chromium	ND	mg/L		0.01		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Cobalt	ND	mg/L		0.01		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Copper	0.003	mg/L		0.001		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01
Lab ID: H15030393-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 18:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Iron	0.31	mg/L		0.02		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Lead	ND	mg/L		0.0003		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Magnesium	6	mg/L		1		E200.7	03/31/15 10:18 / sld		ICP2-HE_150331B	15	R105154
Manganese	0.034	mg/L		0.001		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Mercury	8.4E-06	mg/L		5E-06		E245.1	04/06/15 13:10 / rgk	04/02/15 09:17	HGCV202-H_150406A	19	28571
Molybdenum	0.005	mg/L		0.005		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Nickel	ND	mg/L		0.002		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Potassium	2	mg/L		1		E200.7	03/31/15 10:18 / sld		ICP2-HE_150331B	15	R105154
Selenium	ND	mg/L		0.001		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Silver	ND	mg/L		0.0002		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Sodium	10	mg/L		1		E200.7	03/31/15 10:18 / sld		ICP2-HE_150331B	15	R105154
Uranium	0.0027	mg/L		0.0002		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Vanadium	ND	mg/L		0.1		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
Zinc	ND	mg/L		0.008		E200.8	04/06/15 12:21 / dck		ICPMS204-B_150406A	72	R105269
METALS, TOTAL RECOVERABLE											
Aluminum	0.251	mg/L		0.009		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Antimony	0.0005	mg/L		0.0005		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Arsenic	0.005	mg/L		0.001		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Barium	0.043	mg/L		0.003		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Beryllium	ND	mg/L		0.0008		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Boron	ND	mg/L		0.1		E200.7	04/01/15 15:30 / sld	03/31/15 09:38	ICP2-HE_150401B	42	28544
Cadmium	ND	mg/L		0.00003		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Calcium	28	mg/L		1		E200.7	04/01/15 15:30 / sld	03/31/15 09:38	ICP2-HE_150401B	42	28544
Chromium	ND	mg/L		0.01		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Cobalt	ND	mg/L		0.01		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Copper	0.006	mg/L		0.001		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Iron	0.88	mg/L		0.02		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Lead	0.0009	mg/L		0.0003		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Magnesium	6	mg/L		1		E200.7	04/01/15 15:30 / sld	03/31/15 09:38	ICP2-HE_150401B	42	28544
Manganese	0.055	mg/L		0.001		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Mercury	0.000016	mg/L		5E-06		E245.1	04/06/15 13:14 / rgk	04/02/15 09:17	HGCV202-H_150406A	20	28571

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01
Lab ID: H15030393-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 18:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Molybdenum	0.005	mg/L		0.005		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Nickel	ND	mg/L		0.002		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Potassium	2	mg/L		1		E200.7	04/01/15 15:30 / sld	03/31/15 09:38	ICP2-HE_150401B	42	28544
Selenium	ND	mg/L		0.001		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Silver	ND	mg/L		0.0002		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Sodium	10	mg/L		1		E200.7	04/01/15 15:30 / sld	03/31/15 09:38	ICP2-HE_150401B	42	28544
Uranium	0.0030	mg/L		0.0002		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Vanadium	ND	mg/L		0.1		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544
Zinc	0.009	mg/L		0.008		E200.8	04/06/15 12:36 / dck	03/31/15 09:38	ICPMS204-B_150406A	78	28544

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: Field Duplicate 2 (SS-01)
Lab ID: H15030393-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 18:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Conductivity @ 25 C	238	umhos/cm		1		A2510 B	03/31/15 09:43 / SR		PHSC_101-H_150331A	12	R105121
Solids, Total Suspended TSS @ 105 C	8	mg/L		1		A2540 D	03/30/15 15:21 / SR		L24 (14410200)_150330A	11	TSS150330A
Solids, Volatile Suspended	3	mg/L		1		A2540 E	03/31/15 10:16 / SR		MISC WC_150331A	3	150331A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	75	mg/L		4		A2320 B	04/01/15 09:33 / SR		PHSC_101-H_150401A	13	R105152
Bicarbonate as HCO3	91	mg/L		4		A2320 B	04/01/15 09:33 / SR		PHSC_101-H_150401A	13	R105152
Chloride	10	mg/L		1		E300.0	03/31/15 12:04 / SR		IC102-H_150331A	22	R105153
Sulfate	18	mg/L		1		E300.0	03/31/15 12:04 / SR		IC102-H_150331A	22	R105153
Hardness as CaCO3	92	mg/L		1		A2340 B	03/31/15 10:40 / abb		CALC_150402A	36	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.3	mg/L		0.5		A5310 C	04/02/15 02:37 / eli-c		SUB-C197799	4	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	04/01/15 10:32 / cm		FIA203-HE_150401B	17	R105171
Nitrogen, Nitrate+Nitrite as N	0.39	mg/L		0.02		E353.2	03/31/15 15:05 / cm		FIA203-HE_150331C	75	R105150
Nitrogen, Total	0.61	mg/L		0.05		A4500 N-C	04/01/15 08:00 / cm	03/31/15 09:25	FIA203-HE_150401A	14	28542
Phosphorus, Total as P	0.087	mg/L		0.003		E365.1	04/01/15 07:58 / cm	03/31/15 14:02	FIA202-HE_150401A	15	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Antimony	ND	mg/L		0.0005		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Arsenic	0.003	mg/L		0.001		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Barium	0.039	mg/L		0.003		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Beryllium	ND	mg/L		0.0008		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Boron	ND	mg/L		0.1		E200.7	03/31/15 10:40 / sld		ICP2-HE_150331B	21	R105154
Cadmium	ND	mg/L		0.00003		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Calcium	27	mg/L		1		E200.7	03/31/15 10:40 / sld		ICP2-HE_150331B	21	R105154
Chromium	ND	mg/L		0.01		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Cobalt	ND	mg/L		0.01		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Copper	0.004	mg/L		0.001		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: Field Duplicate 2 (SS-01)
Lab ID: H15030393-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 18:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Iron	0.30	mg/L		0.02		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Lead	ND	mg/L		0.0003		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Magnesium	6	mg/L		1		E200.7	03/31/15 10:40 / sld		ICP2-HE_150331B	21	R105154
Manganese	0.035	mg/L		0.001		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Mercury	7.4E-06	mg/L		5E-06		E245.1	04/06/15 13:25 / rgk	04/02/15 09:17	HGCV202-H_150406A	23	28571
Molybdenum	0.005	mg/L		0.005		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Nickel	ND	mg/L		0.002		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Potassium	2	mg/L		1		E200.7	03/31/15 10:40 / sld		ICP2-HE_150331B	21	R105154
Selenium	ND	mg/L		0.001		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Silver	ND	mg/L		0.0002		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Sodium	10	mg/L		1		E200.7	03/31/15 10:40 / sld		ICP2-HE_150331B	21	R105154
Uranium	0.0028	mg/L		0.0002		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Vanadium	ND	mg/L		0.1		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
Zinc	ND	mg/L		0.008		E200.8	04/06/15 12:39 / dck		ICPMS204-B_150406A	79	R105269
METALS, TOTAL RECOVERABLE											
Aluminum	0.251	mg/L		0.009		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Antimony	0.0005	mg/L		0.0005		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Arsenic	0.004	mg/L		0.001		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Barium	0.043	mg/L		0.003		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Beryllium	ND	mg/L		0.0008		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Boron	ND	mg/L		0.1		E200.7	04/01/15 15:34 / sld	03/31/15 09:38	ICP2-HE_150401B	43	28544
Cadmium	ND	mg/L		0.00003		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Calcium	28	mg/L		1		E200.7	04/01/15 15:34 / sld	03/31/15 09:38	ICP2-HE_150401B	43	28544
Chromium	ND	mg/L		0.01		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Cobalt	ND	mg/L		0.01		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Copper	0.006	mg/L		0.001		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Iron	0.89	mg/L		0.02		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Lead	0.0009	mg/L		0.0003		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Magnesium	6	mg/L		1		E200.7	04/01/15 15:34 / sld	03/31/15 09:38	ICP2-HE_150401B	43	28544
Manganese	0.056	mg/L		0.001		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Mercury	0.000014	mg/L		5E-06		E245.1	04/06/15 13:36 / rgk	04/02/15 09:17	HGCV202-H_150406A	26	28571

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: Field Duplicate 2 (SS-01)
Lab ID: H15030393-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 18:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Molybdenum	0.005	mg/L		0.005		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Nickel	ND	mg/L		0.002		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Potassium	2	mg/L		1		E200.7	04/01/15 15:34 / sld	03/31/15 09:38	ICP2-HE_150401B	43	28544
Selenium	ND	mg/L		0.001		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Silver	ND	mg/L		0.0002		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Sodium	10	mg/L		1		E200.7	04/01/15 15:34 / sld	03/31/15 09:38	ICP2-HE_150401B	43	28544
Uranium	0.0030	mg/L		0.0002		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Vanadium	ND	mg/L		0.1		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544
Zinc	0.009	mg/L		0.008		E200.8	04/06/15 12:41 / dck	03/31/15 09:38	ICPMS204-B_150406A	80	28544

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: Field Blank 2
Lab ID: H15030393-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 17:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Conductivity @ 25 C	2	umhos/cm		1		A2510 B	03/31/15 09:46 / SR		PHSC_101-H_150331A	14	R105121
Solids, Total Suspended TSS @ 105 C	ND	mg/L		1		A2540 D	03/30/15 15:21 / SR		L24 (14410200)_150330A	12	TSS150330A
Solids, Volatile Suspended	ND	mg/L		1		A2540 E	03/31/15 10:17 / SR		MISC WC_150331A	4	150331A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	ND	mg/L		4		A2320 B	04/01/15 09:53 / SR		PHSC_101-H_150401A	16	R105152
Bicarbonate as HCO3	ND	mg/L		4		A2320 B	04/01/15 09:53 / SR		PHSC_101-H_150401A	16	R105152
Chloride	ND	mg/L		1		E300.0	03/31/15 12:15 / SR		IC102-H_150331A	23	R105153
Sulfate	ND	mg/L		1		E300.0	03/31/15 12:15 / SR		IC102-H_150331A	23	R105153
Hardness as CaCO3	ND	mg/L		1		A2340 B	04/08/15 09:29 / sld		WATERCALC_150408A	2	R105321
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	ND	mg/L		0.5		A5310 C	04/02/15 02:52 / eli-c		SUB-C197799	5	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	04/01/15 10:33 / cm		FIA203-HE_150401B	18	R105171
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.02		E353.2	03/31/15 15:08 / cm		FIA203-HE_150331C	78	R105150
Nitrogen, Total	ND	mg/L		0.05		A4500 N-C	04/01/15 08:01 / cm	03/31/15 09:25	FIA203-HE_150401A	15	28542
Phosphorus, Total as P	ND	mg/L		0.003		E365.1	04/01/15 07:59 / cm	03/31/15 14:02	FIA202-HE_150401A	16	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Antimony	ND	mg/L		0.0005		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Arsenic	ND	mg/L		0.001		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Barium	ND	mg/L		0.003		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Beryllium	ND	mg/L		0.0008		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Boron	ND	mg/L		0.1		E200.7	03/31/15 10:44 / sld		ICP2-HE_150331B	22	R105154
Cadmium	ND	mg/L		0.00003		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Calcium	ND	mg/L		1		E200.7	03/31/15 10:44 / sld		ICP2-HE_150331B	22	R105154
Chromium	ND	mg/L		0.01		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Cobalt	ND	mg/L		0.01		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Copper	ND	mg/L		0.001		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: Field Blank 2
Lab ID: H15030393-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 17:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Iron	ND	mg/L		0.02		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Lead	ND	mg/L		0.0003		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Magnesium	ND	mg/L		1		E200.7	03/31/15 10:44 / sld		ICP2-HE_150331B	22	R105154
Manganese	ND	mg/L		0.001		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Mercury	ND	mg/L		5E-06		E245.1	04/13/15 14:34 / rgk	04/10/15 11:26	HGCV202-H_150413A	31	28637
Molybdenum	ND	mg/L		0.005		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Nickel	ND	mg/L		0.002		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Potassium	ND	mg/L		1		E200.7	03/31/15 10:44 / sld		ICP2-HE_150331B	22	R105154
Selenium	ND	mg/L		0.001		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Silver	ND	mg/L		0.0002		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Sodium	ND	mg/L		1		E200.7	03/31/15 10:44 / sld		ICP2-HE_150331B	22	R105154
Uranium	ND	mg/L		0.0002		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Vanadium	ND	mg/L		0.1		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
Zinc	ND	mg/L		0.008		E200.8	04/06/15 12:58 / dck		ICPMS204-B_150406A	87	R105269
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.009		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Antimony	ND	mg/L		0.0005		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Arsenic	ND	mg/L		0.001		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Barium	ND	mg/L		0.003		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Beryllium	ND	mg/L		0.0008		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Boron	ND	mg/L		0.1		E200.7	04/01/15 15:57 / sld	03/31/15 09:38	ICP2-HE_150401B	49	28544
Cadmium	ND	mg/L		0.00003		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Calcium	ND	mg/L		1		E200.7	04/01/15 15:57 / sld	03/31/15 09:38	ICP2-HE_150401B	49	28544
Chromium	ND	mg/L		0.01		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Cobalt	ND	mg/L		0.01		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Copper	ND	mg/L		0.001		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Iron	ND	mg/L		0.02		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Lead	ND	mg/L		0.0003		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Magnesium	ND	mg/L		1		E200.7	04/01/15 15:57 / sld	03/31/15 09:38	ICP2-HE_150401B	49	28544
Manganese	ND	mg/L		0.001		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Mercury	ND	mg/L		5E-06		E245.1	04/13/15 14:38 / rgk	04/10/15 11:26	HGCV202-H_150413A	32	28637

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: Field Blank 2
Lab ID: H15030393-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 17:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Molybdenum	ND	mg/L		0.005		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Nickel	ND	mg/L		0.002		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Potassium	ND	mg/L		1		E200.7	04/01/15 15:57 / sld	03/31/15 09:38	ICP2-HE_150401B	49	28544
Selenium	ND	mg/L		0.001		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Silver	ND	mg/L		0.0002		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Sodium	ND	mg/L		1		E200.7	04/01/15 15:57 / sld	03/31/15 09:38	ICP2-HE_150401B	49	28544
Uranium	ND	mg/L		0.0002		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Vanadium	ND	mg/L		0.1		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544
Zinc	ND	mg/L		0.008		E200.8	04/06/15 13:01 / dck	03/31/15 09:38	ICPMS204-B_150406A	88	28544

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A
Lab ID: H15030393-004
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 16:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Conductivity @ 25 C	322	umhos/cm		1		A2510 B	03/31/15 09:48 / SR		PHSC_101-H_150331A	16	R105121
Solids, Total Suspended TSS @ 105 C	8	mg/L	D	2		A2540 D	03/30/15 15:22 / SR		L24 (14410200)_150330A	13	TSS150330A
Solids, Volatile Suspended	5	mg/L		1		A2540 E	03/31/15 10:17 / SR		MISC WC_150331A	5	150331A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	04/01/15 09:58 / SR		PHSC_101-H_150401A	18	R105152
Bicarbonate as HCO3	66	mg/L		4		A2320 B	04/01/15 09:58 / SR		PHSC_101-H_150401A	18	R105152
Chloride	14	mg/L		1		E300.0	03/31/15 12:27 / SR		IC102-H_150331A	24	R105153
Sulfate	27	mg/L		1		E300.0	03/31/15 12:27 / SR		IC102-H_150331A	24	R105153
Hardness as CaCO3	137	mg/L		1		A2340 B	03/31/15 10:48 / abb		CALC_150402A	58	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.7	mg/L		0.5		A5310 C	04/02/15 03:08 / eli-c		SUB-C197799	6	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	04/01/15 10:36 / cm		FIA203-HE_150401B	21	R105171
Nitrogen, Nitrate+Nitrite as N	0.61	mg/L		0.02		E353.2	03/31/15 15:10 / cm		FIA203-HE_150331C	79	R105150
Nitrogen, Total	1.00	mg/L		0.05		A4500 N-C	04/01/15 08:05 / cm	03/31/15 09:25	FIA203-HE_150401A	18	28542
Phosphorus, Total as P	0.112	mg/L		0.003		E365.1	04/01/15 08:02 / cm	03/31/15 14:02	FIA202-HE_150401A	19	28547
METALS, DISSOLVED											
Aluminum	0.015	mg/L		0.009		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Antimony	0.0007	mg/L		0.0005		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Arsenic	0.007	mg/L		0.001		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Barium	0.041	mg/L		0.003		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Beryllium	ND	mg/L		0.0008		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Boron	ND	mg/L		0.1		E200.7	03/31/15 10:48 / sld		ICP2-HE_150331B	23	R105154
Cadmium	ND	mg/L		0.00003		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Calcium	43	mg/L		1		E200.7	03/31/15 10:48 / sld		ICP2-HE_150331B	23	R105154
Chromium	ND	mg/L		0.01		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Cobalt	ND	mg/L		0.01		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Copper	0.004	mg/L		0.001		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A
Lab ID: H15030393-004
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 16:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Iron	0.13	mg/L		0.02		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Lead	ND	mg/L		0.0003		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Magnesium	7	mg/L		1		E200.7	03/31/15 10:48 / sld		ICP2-HE_150331B	23	R105154
Manganese	0.031	mg/L		0.001		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Mercury	8.1E-06	mg/L		5E-06		E245.1	04/06/15 13:48 / rgk	04/02/15 09:17	HGCV202-H_150406A	29	28571
Molybdenum	0.007	mg/L		0.005		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Nickel	ND	mg/L		0.002		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Potassium	3	mg/L		1		E200.7	03/31/15 10:48 / sld		ICP2-HE_150331B	23	R105154
Selenium	ND	mg/L		0.001		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Silver	ND	mg/L		0.0002		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Sodium	12	mg/L		1		E200.7	03/31/15 10:48 / sld		ICP2-HE_150331B	23	R105154
Uranium	0.0040	mg/L		0.0002		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Vanadium	ND	mg/L		0.1		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
Zinc	ND	mg/L		0.008		E200.8	04/06/15 13:04 / dck		ICPMS204-B_150406A	89	R105269
METALS, TOTAL RECOVERABLE											
Aluminum	0.125	mg/L		0.009		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Antimony	0.0009	mg/L		0.0005		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Arsenic	0.008	mg/L		0.001		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Barium	0.041	mg/L		0.003		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Beryllium	ND	mg/L		0.0008		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Boron	ND	mg/L		0.1		E200.7	04/01/15 16:00 / sld	03/31/15 09:38	ICP2-HE_150401B	50	28544
Cadmium	0.00006	mg/L		0.00003		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Calcium	44	mg/L		1		E200.7	04/01/15 16:00 / sld	03/31/15 09:38	ICP2-HE_150401B	50	28544
Chromium	ND	mg/L		0.01		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Cobalt	ND	mg/L		0.01		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Copper	0.007	mg/L		0.001		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Iron	0.53	mg/L		0.02		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Lead	0.0013	mg/L		0.0003		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Magnesium	7	mg/L		1		E200.7	04/01/15 16:00 / sld	03/31/15 09:38	ICP2-HE_150401B	50	28544
Manganese	0.055	mg/L		0.001		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Mercury	0.000012	mg/L		5E-06		E245.1	04/06/15 13:51 / rgk	04/02/15 09:17	HGCV202-H_150406A	30	28571

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A
Lab ID: H15030393-004
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 16:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Molybdenum	0.007	mg/L		0.005		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Nickel	ND	mg/L		0.002		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Potassium	3	mg/L		1		E200.7	04/01/15 16:00 / sld	03/31/15 09:38	ICP2-HE_150401B	50	28544
Selenium	ND	mg/L		0.001		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Silver	ND	mg/L		0.0002		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Sodium	12	mg/L		1		E200.7	04/01/15 16:00 / sld	03/31/15 09:38	ICP2-HE_150401B	50	28544
Uranium	0.0043	mg/L		0.0002		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Vanadium	ND	mg/L		0.1		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544
Zinc	0.017	mg/L		0.008		E200.8	04/06/15 13:06 / dck	03/31/15 09:38	ICPMS204-B_150406A	90	28544

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G
Lab ID: H15030393-005
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 14:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Conductivity @ 25 C	215	umhos/cm		1		A2510 B	03/31/15 09:51 / SR		PHSC_101-H_150331A	18	R105121
Solids, Total Suspended TSS @ 105 C	5	mg/L		1		A2540 D	03/30/15 15:20 / SR		-124 (14410200)_150330A	7	TSS150330A
Solids, Volatile Suspended	3	mg/L		1		A2540 E	03/31/15 10:18 / SR		MISC WC_150331A	7	150331A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	79	mg/L		4		A2320 B	04/01/15 10:05 / SR		PHSC_101-H_150401A	20	R105152
Bicarbonate as HCO3	95	mg/L		4		A2320 B	04/01/15 10:05 / SR		PHSC_101-H_150401A	20	R105152
Chloride	ND	mg/L		1		E300.0	03/31/15 12:38 / SR		IC102-H_150331A	25	R105153
Sulfate	21	mg/L		1		E300.0	03/31/15 12:38 / SR		IC102-H_150331A	25	R105153
Hardness as CaCO3	97	mg/L		1		A2340 B	04/08/15 09:29 / sld		WATERCALC_150408A	3	R105321
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.2	mg/L		0.5		A5310 C	04/02/15 03:23 / eli-c		SUB-C197799	7	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	04/01/15 10:38 / cm		FIA203-HE_150401B	22	R105171
Nitrogen, Nitrate+Nitrite as N	0.02	mg/L		0.02		E353.2	03/31/15 15:11 / cm		FIA203-HE_150331C	80	R105150
Nitrogen, Total	0.15	mg/L		0.05		A4500 N-C	04/01/15 08:06 / cm	03/31/15 09:25	FIA203-HE_150401A	19	28542
Phosphorus, Total as P	0.036	mg/L		0.003		E365.1	04/01/15 08:03 / cm	03/31/15 14:02	FIA202-HE_150401A	20	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Antimony	ND	mg/L		0.0005		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Arsenic	0.003	mg/L		0.001		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Barium	0.026	mg/L		0.003		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Beryllium	ND	mg/L		0.0008		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Boron	ND	mg/L		0.1		E200.7	03/31/15 10:52 / sld		ICP2-HE_150331B	24	R105154
Cadmium	ND	mg/L		0.00003		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Calcium	29	mg/L		1		E200.7	03/31/15 10:52 / sld		ICP2-HE_150331B	24	R105154
Chromium	ND	mg/L		0.01		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Cobalt	ND	mg/L		0.01		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Copper	0.001	mg/L		0.001		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G
Lab ID: H15030393-005
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 14:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Iron	ND	mg/L		0.02		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Lead	ND	mg/L		0.0003		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Magnesium	5	mg/L		1		E200.7	03/31/15 10:52 / sld		ICP2-HE_150331B	24	R105154
Manganese	0.002	mg/L		0.001		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Mercury	8.6E-06	mg/L		5E-06		E245.1	04/06/15 13:55 / rgk	04/02/15 09:17	HGCV202-H_150406A	31	28571
Molybdenum	ND	mg/L		0.005		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Nickel	ND	mg/L		0.002		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Potassium	1	mg/L		1		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Selenium	ND	mg/L		0.001		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Silver	ND	mg/L		0.0002		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Sodium	4	mg/L		1		E200.7	03/31/15 10:52 / sld		ICP2-HE_150331B	24	R105154
Uranium	0.0007	mg/L		0.0002		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Vanadium	ND	mg/L		0.1		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
Zinc	ND	mg/L		0.008		E200.8	04/06/15 13:09 / dck		ICPMS204-B_150406A	91	R105269
METALS, TOTAL RECOVERABLE											
Aluminum	0.362	mg/L		0.009		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Antimony	0.0005	mg/L		0.0005		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Arsenic	0.004	mg/L		0.001		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Barium	0.024	mg/L		0.003		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Beryllium	ND	mg/L		0.0008		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Boron	ND	mg/L		0.1		E200.7	04/01/15 16:04 / sld	03/31/15 09:38	ICP2-HE_150401B	51	28544
Cadmium	ND	mg/L		0.00003		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Calcium	30	mg/L		1		E200.7	04/01/15 16:04 / sld	03/31/15 09:38	ICP2-HE_150401B	51	28544
Chromium	ND	mg/L		0.01		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Cobalt	ND	mg/L		0.01		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Copper	0.002	mg/L		0.001		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Iron	0.24	mg/L		0.02		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Lead	0.0003	mg/L		0.0003		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Magnesium	5	mg/L		1		E200.7	04/01/15 16:04 / sld	03/31/15 09:38	ICP2-HE_150401B	51	28544
Manganese	0.009	mg/L		0.001		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Mercury	9.4E-06	mg/L		5E-06		E245.1	04/06/15 13:59 / rgk	04/02/15 09:17	HGCV202-H_150406A	32	28571

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G
Lab ID: H15030393-005
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 14:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Molybdenum	ND	mg/L		0.005		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Nickel	ND	mg/L		0.002		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Potassium	1	mg/L		1		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Selenium	ND	mg/L		0.001		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Silver	ND	mg/L		0.0002		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Sodium	4	mg/L		1		E200.7	04/01/15 16:04 / sld	03/31/15 09:38	ICP2-HE_150401B	51	28544
Uranium	0.0008	mg/L		0.0002		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Vanadium	ND	mg/L		0.1		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544
Zinc	ND	mg/L		0.008		E200.8	04/06/15 13:19 / dck	03/31/15 09:38	ICPMS204-B_150406A	95	28544

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01 Sediment Sieve <0.065mm
Lab ID: H15030393-006
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 18:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	6.5	wt% Passed		0.1		ASA15-2	04/07/15 08:25 / edp		MISC SOILS_150407C	1	R105484
PHYSICAL CHARACTERISTICS											
Moisture	48.0	wt%		0.2		D2974	04/10/15 09:45 / edp		DRYING OVEN 2_150409A	5	R105402
3050 EXTRACTABLE METALS											
Aluminum	20900	mg/kg-dry		6		SW6010B	04/13/15 15:00 / sld	04/09/15 09:58	ICP2-HE_150413B	61	28625
Antimony	ND	mg/kg-dry		5		SW6020	04/14/15 12:59 / dck	04/09/15 09:58	ICPMS204-B_150414B	61	28625
Arsenic	63	mg/kg-dry		5		SW6020	04/14/15 12:59 / dck	04/09/15 09:58	ICPMS204-B_150414B	61	28625
Barium	280	mg/kg-dry		5		SW6010B	04/13/15 15:00 / sld	04/09/15 09:58	ICP2-HE_150413B	61	28625
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 15:00 / sld	04/09/15 09:58	ICP2-HE_150413B	61	28625
Boron	10	mg/kg-dry		5		SW6010B	04/13/15 15:00 / sld	04/09/15 09:58	ICP2-HE_150413B	61	28625
Cadmium	5	mg/kg-dry	D	1		SW6020	04/14/15 12:59 / dck	04/09/15 09:58	ICPMS204-B_150414B	61	28625
Chromium	56	mg/kg-dry		5		SW6020	04/14/15 12:59 / dck	04/09/15 09:58	ICPMS204-B_150414B	61	28625
Cobalt	5	mg/kg-dry		5		SW6010B	04/13/15 15:00 / sld	04/09/15 09:58	ICP2-HE_150413B	61	28625
Copper	362	mg/kg-dry		5		SW6010B	04/13/15 15:00 / sld	04/09/15 09:58	ICP2-HE_150413B	61	28625
Iron	32400	mg/kg-dry		6		SW6010B	04/13/15 15:00 / sld	04/09/15 09:58	ICP2-HE_150413B	61	28625
Lead	198	mg/kg-dry		5		SW6020	04/14/15 12:59 / dck	04/09/15 09:58	ICPMS204-B_150414B	61	28625
Manganese	866	mg/kg-dry		5		SW6010B	04/13/15 15:00 / sld	04/09/15 09:58	ICP2-HE_150413B	61	28625
Molybdenum	21	mg/kg-dry		5		SW6020	04/14/15 12:59 / dck	04/09/15 09:58	ICPMS204-B_150414B	61	28625
Nickel	19	mg/kg-dry		5		SW6010B	04/13/15 15:00 / sld	04/09/15 09:58	ICP2-HE_150413B	61	28625
Selenium	7	mg/kg-dry		5		SW6020	04/14/15 12:59 / dck	04/09/15 09:58	ICPMS204-B_150414B	61	28625
Silver	ND	mg/kg-dry		5		SW6020	04/14/15 15:37 / dck	04/09/15 09:58	ICPMS204-B_150414B	103	28625
Uranium	11	mg/kg-dry		5		SW6020	04/14/15 12:59 / dck	04/09/15 09:58	ICPMS204-B_150414B	61	28625
Vanadium	109	mg/kg-dry	D	4		SW6020	04/14/15 12:59 / dck	04/09/15 09:58	ICPMS204-B_150414B	61	28625
Zinc	462	mg/kg-dry		5		SW6010B	04/13/15 15:00 / sld	04/09/15 09:58	ICP2-HE_150413B	61	28625
METALS, TOTAL											
Mercury	0.13	mg/kg-dry		0.10		SW7471B	04/10/15 14:30 / rgk	04/08/15 11:28	HGCV201-H_150410A	67	28616

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01 Sediment Sieve 1mm-0.063
Lab ID: H15030393-007
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 18:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	64.0	wt% retained		0.1		ASA15-2	04/07/15 08:25 / edp		MISC SOILS_150407C	2	R105484
PHYSICAL CHARACTERISTICS											
Moisture	22.6	wt%		0.2		D2974	04/10/15 09:45 / edp		DRYING OVEN 2_150409A	6	R105402
3050 EXTRACTABLE METALS											
Aluminum	4460	mg/kg-dry		5		SW6010B	04/13/15 14:05 / sld	04/09/15 09:52	ICP2-HE_150413B	46	28624
Antimony	ND	mg/kg-dry		5		SW6020	04/13/15 21:55 / dck	04/09/15 09:52	ICPMS204-B_150413C	75	28624
Arsenic	9	mg/kg-dry		5		SW6020	04/13/15 21:55 / dck	04/09/15 09:52	ICPMS204-B_150413C	75	28624
Barium	63	mg/kg-dry		5		SW6010B	04/13/15 14:05 / sld	04/09/15 09:52	ICP2-HE_150413B	46	28624
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 14:05 / sld	04/09/15 09:52	ICP2-HE_150413B	46	28624
Boron	ND	mg/kg-dry		5		SW6010B	04/13/15 14:05 / sld	04/09/15 09:52	ICP2-HE_150413B	46	28624
Cadmium	0.2	mg/kg-dry		0.2		SW6020	04/13/15 21:55 / dck	04/09/15 09:52	ICPMS204-B_150413C	75	28624
Chromium	16	mg/kg-dry		5		SW6020	04/13/15 21:55 / dck	04/09/15 09:52	ICPMS204-B_150413C	75	28624
Cobalt	ND	mg/kg-dry		5		SW6010B	04/13/15 14:05 / sld	04/09/15 09:52	ICP2-HE_150413B	46	28624
Copper	47	mg/kg-dry		5		SW6010B	04/13/15 14:05 / sld	04/09/15 09:52	ICP2-HE_150413B	46	28624
Iron	16500	mg/kg-dry		5		SW6010B	04/13/15 14:05 / sld	04/09/15 09:52	ICP2-HE_150413B	46	28624
Lead	30	mg/kg-dry		5		SW6020	04/13/15 21:55 / dck	04/09/15 09:52	ICPMS204-B_150413C	75	28624
Manganese	183	mg/kg-dry		5		SW6010B	04/13/15 14:05 / sld	04/09/15 09:52	ICP2-HE_150413B	46	28624
Molybdenum	ND	mg/kg-dry		5		SW6020	04/13/15 21:55 / dck	04/09/15 09:52	ICPMS204-B_150413C	75	28624
Nickel	ND	mg/kg-dry		5		SW6010B	04/13/15 14:05 / sld	04/09/15 09:52	ICP2-HE_150413B	46	28624
Selenium	ND	mg/kg-dry		5		SW6020	04/13/15 21:55 / dck	04/09/15 09:52	ICPMS204-B_150413C	75	28624
Silver	ND	mg/kg-dry		5		SW6020	04/13/15 21:55 / dck	04/09/15 09:52	ICPMS204-B_150413C	75	28624
Uranium	ND	mg/kg-dry		5		SW6020	04/14/15 12:25 / dck	04/09/15 09:52	ICPMS204-B_150414B	48	28624
Vanadium	55	mg/kg-dry	D	6		SW6020	04/14/15 12:25 / dck	04/09/15 09:52	ICPMS204-B_150414B	48	28624
Zinc	128	mg/kg-dry		5		SW6010B	04/13/15 14:05 / sld	04/09/15 09:52	ICP2-HE_150413B	46	28624
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/10/15 14:40 / rgk	04/08/15 11:28	HGCV201-H_150410A	71	28616

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01 Sediment Sieve 2mm-1mm
Lab ID: H15030393-008
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 18:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	14.1	wt% retained		0.1		ASA15-2	04/07/15 08:25 / edp		MISC SOILS_150407C	3	R105484
PHYSICAL CHARACTERISTICS											
Moisture	20.3	wt%		0.2		D2974	04/10/15 09:45 / edp		DRYING OVEN 2_150409A	7	R105402
3050 EXTRACTABLE METALS											
Aluminum	3460	mg/kg-dry		5		SW6010B	04/13/15 12:35 / sld	04/09/15 09:46	ICP2-HE_150413B	22	28623
Antimony	ND	mg/kg-dry		5		SW6020	04/13/15 16:33 / dck	04/09/15 09:46	ICPMS204-B_150413C	39	28623
Arsenic	ND	mg/kg-dry		5		SW6020	04/13/15 16:33 / dck	04/09/15 09:46	ICPMS204-B_150413C	39	28623
Barium	46	mg/kg-dry		5		SW6010B	04/13/15 12:35 / sld	04/09/15 09:46	ICP2-HE_150413B	22	28623
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 12:35 / sld	04/09/15 09:46	ICP2-HE_150413B	22	28623
Boron	ND	mg/kg-dry		5		SW6010B	04/13/15 12:35 / sld	04/09/15 09:46	ICP2-HE_150413B	22	28623
Cadmium	ND	mg/kg-dry		0.2		SW6020	04/13/15 16:33 / dck	04/09/15 09:46	ICPMS204-B_150413C	39	28623
Chromium	ND	mg/kg-dry		5		SW6020	04/13/15 16:33 / dck	04/09/15 09:46	ICPMS204-B_150413C	39	28623
Cobalt	ND	mg/kg-dry		5		SW6010B	04/13/15 12:35 / sld	04/09/15 09:46	ICP2-HE_150413B	22	28623
Copper	21	mg/kg-dry		5		SW6010B	04/22/15 15:54 / sld	04/21/15 11:02	ICP2-HE_150422C	35	28717
Iron	5230	mg/kg-dry		5		SW6010B	04/13/15 12:35 / sld	04/09/15 09:46	ICP2-HE_150413B	22	28623
Lead	15	mg/kg-dry		5		SW6020	04/13/15 16:33 / dck	04/09/15 09:46	ICPMS204-B_150413C	39	28623
Manganese	113	mg/kg-dry		5		SW6010B	04/13/15 12:35 / sld	04/09/15 09:46	ICP2-HE_150413B	22	28623
Molybdenum	ND	mg/kg-dry		5		SW6020	04/13/15 16:33 / dck	04/09/15 09:46	ICPMS204-B_150413C	39	28623
Nickel	ND	mg/kg-dry		5		SW6010B	04/13/15 12:35 / sld	04/09/15 09:46	ICP2-HE_150413B	22	28623
Selenium	ND	mg/kg-dry		5		SW6020	04/13/15 16:33 / dck	04/09/15 09:46	ICPMS204-B_150413C	39	28623
Silver	ND	mg/kg-dry		5		SW6020	04/14/15 15:40 / dck	04/09/15 09:46	ICPMS204-B_150414B	104	28623
Uranium	ND	mg/kg-dry		5		SW6020	04/14/15 11:57 / dck	04/09/15 09:46	ICPMS204-B_150414B	37	28623
Vanadium	17	mg/kg-dry	D	7		SW6020	04/14/15 11:57 / dck	04/09/15 09:46	ICPMS204-B_150414B	37	28623
Zinc	36	mg/kg-dry		5		SW6010B	04/22/15 15:54 / sld	04/21/15 11:02	ICP2-HE_150422C	35	28717
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/10/15 14:43 / rgk	04/08/15 11:28	HGCV201-H_150410A	72	28616

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A Sediment Sieve <0.065mm
Lab ID: H15030393-009
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 16:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	4.1	wt% Passed		0.1		ASA15-2	04/07/15 08:25 / edp		MISC SOILS_150407C	4	R105484
PHYSICAL CHARACTERISTICS											
Moisture	52.0	wt%		0.2		D2974	04/10/15 09:45 / edp		DRYING OVEN 2_150409A	8	R105402
3050 EXTRACTABLE METALS											
Aluminum	19500	mg/kg-dry		7		SW6010B	04/13/15 15:04 / sld	04/09/15 09:58	ICP2-HE_150413B	62	28625
Antimony	ND	mg/kg-dry		5		SW6020	04/14/15 13:01 / dck	04/09/15 09:58	ICPMS204-B_150414B	62	28625
Arsenic	304	mg/kg-dry		5		SW6020	04/14/15 13:01 / dck	04/09/15 09:58	ICPMS204-B_150414B	62	28625
Barium	359	mg/kg-dry		5		SW6010B	04/13/15 15:04 / sld	04/09/15 09:58	ICP2-HE_150413B	62	28625
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 15:04 / sld	04/09/15 09:58	ICP2-HE_150413B	62	28625
Boron	12	mg/kg-dry		5		SW6010B	04/13/15 15:04 / sld	04/09/15 09:58	ICP2-HE_150413B	62	28625
Cadmium	15	mg/kg-dry	D	2		SW6020	04/14/15 13:01 / dck	04/09/15 09:58	ICPMS204-B_150414B	62	28625
Chromium	63	mg/kg-dry		5		SW6020	04/14/15 13:01 / dck	04/09/15 09:58	ICPMS204-B_150414B	62	28625
Cobalt	6	mg/kg-dry		5		SW6010B	04/13/15 15:04 / sld	04/09/15 09:58	ICP2-HE_150413B	62	28625
Copper	2980	mg/kg-dry		5		SW6010B	04/13/15 15:04 / sld	04/09/15 09:58	ICP2-HE_150413B	62	28625
Iron	42700	mg/kg-dry		6		SW6010B	04/13/15 15:04 / sld	04/09/15 09:58	ICP2-HE_150413B	62	28625
Lead	743	mg/kg-dry		5		SW6020	04/14/15 13:01 / dck	04/09/15 09:58	ICPMS204-B_150414B	62	28625
Manganese	2170	mg/kg-dry		5		SW6010B	04/13/15 15:04 / sld	04/09/15 09:58	ICP2-HE_150413B	62	28625
Molybdenum	16	mg/kg-dry		5		SW6020	04/14/15 13:01 / dck	04/09/15 09:58	ICPMS204-B_150414B	62	28625
Nickel	20	mg/kg-dry		5		SW6010B	04/13/15 15:04 / sld	04/09/15 09:58	ICP2-HE_150413B	62	28625
Selenium	ND	mg/kg-dry		5		SW6020	04/14/15 13:01 / dck	04/09/15 09:58	ICPMS204-B_150414B	62	28625
Silver	10	mg/kg-dry		5		SW6020	04/14/15 15:42 / dck	04/09/15 09:58	ICPMS204-B_150414B	105	28625
Uranium	9	mg/kg-dry		5		SW6020	04/14/15 13:01 / dck	04/09/15 09:58	ICPMS204-B_150414B	62	28625
Vanadium	106	mg/kg-dry	D	4		SW6020	04/14/15 13:01 / dck	04/09/15 09:58	ICPMS204-B_150414B	62	28625
Zinc	2920	mg/kg-dry		5		SW6010B	04/13/15 15:04 / sld	04/09/15 09:58	ICP2-HE_150413B	62	28625
METALS, TOTAL											
Mercury	0.90	mg/kg-dry		0.10		SW7471B	04/10/15 14:45 / rgk	04/08/15 11:28	HGCV201-H_150410A	73	28616

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A Sediment Sieve 1mm-0.063mm
Lab ID: H15030393-010
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 16:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	48.9	wt% retained		0.1		ASA15-2	04/07/15 08:25 / edp		MISC SOILS_150407C	5	R105484
PHYSICAL CHARACTERISTICS											
Moisture	26.9	wt%		0.2		D2974	04/10/15 09:45 / edp		DRYING OVEN 2_150409A	9	R105402
3050 EXTRACTABLE METALS											
Aluminum	4760	mg/kg-dry		5		SW6010B	04/13/15 14:08 / sld	04/09/15 09:52	ICP2-HE_150413B	47	28624
Antimony	ND	mg/kg-dry		5		SW6020	04/13/15 21:58 / dck	04/09/15 09:52	ICPMS204-B_150413C	76	28624
Arsenic	125	mg/kg-dry		5		SW6020	04/13/15 21:58 / dck	04/09/15 09:52	ICPMS204-B_150413C	76	28624
Barium	71	mg/kg-dry		5		SW6010B	04/13/15 14:08 / sld	04/09/15 09:52	ICP2-HE_150413B	47	28624
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 14:08 / sld	04/09/15 09:52	ICP2-HE_150413B	47	28624
Boron	ND	mg/kg-dry		5		SW6010B	04/13/15 14:08 / sld	04/09/15 09:52	ICP2-HE_150413B	47	28624
Cadmium	2.5	mg/kg-dry		0.2		SW6020	04/13/15 21:58 / dck	04/09/15 09:52	ICPMS204-B_150413C	76	28624
Chromium	19	mg/kg-dry		5		SW6020	04/13/15 21:58 / dck	04/09/15 09:52	ICPMS204-B_150413C	76	28624
Cobalt	7	mg/kg-dry		5		SW6010B	04/13/15 14:08 / sld	04/09/15 09:52	ICP2-HE_150413B	47	28624
Copper	710	mg/kg-dry		5		SW6010B	04/13/15 14:08 / sld	04/09/15 09:52	ICP2-HE_150413B	47	28624
Iron	46000	mg/kg-dry		5		SW6010B	04/13/15 14:08 / sld	04/09/15 09:52	ICP2-HE_150413B	47	28624
Lead	193	mg/kg-dry		5		SW6020	04/13/15 21:58 / dck	04/09/15 09:52	ICPMS204-B_150413C	76	28624
Manganese	684	mg/kg-dry		5		SW6010B	04/13/15 14:08 / sld	04/09/15 09:52	ICP2-HE_150413B	47	28624
Molybdenum	ND	mg/kg-dry		5		SW6020	04/13/15 21:58 / dck	04/09/15 09:52	ICPMS204-B_150413C	76	28624
Nickel	8	mg/kg-dry		5		SW6010B	04/13/15 14:08 / sld	04/09/15 09:52	ICP2-HE_150413B	47	28624
Selenium	ND	mg/kg-dry		5		SW6020	04/13/15 21:58 / dck	04/09/15 09:52	ICPMS204-B_150413C	76	28624
Silver	ND	mg/kg-dry		5		SW6020	04/14/15 12:28 / dck	04/09/15 09:52	ICPMS204-B_150414B	49	28624
Uranium	6	mg/kg-dry		5		SW6020	04/14/15 12:28 / dck	04/09/15 09:52	ICPMS204-B_150414B	49	28624
Vanadium	64	mg/kg-dry	D	3		SW6020	04/14/15 12:28 / dck	04/09/15 09:52	ICPMS204-B_150414B	49	28624
Zinc	1260	mg/kg-dry		5		SW6010B	04/13/15 14:08 / sld	04/09/15 09:52	ICP2-HE_150413B	47	28624
METALS, TOTAL											
Mercury	0.12	mg/kg-dry		0.10		SW7471B	04/10/15 14:48 / rgk	04/08/15 11:28	HGCV201-H_150410A	74	28616

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A Sediment Sieve 2mm-1mm
Lab ID: H15030393-011
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 16:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	15.0	wt% retained		0.1		ASA15-2	04/07/15 08:25 / edp		MISC SOILS_150407C	6	R105484
PHYSICAL CHARACTERISTICS											
Moisture	10.5	wt%		0.2		D2974	04/10/15 09:45 / edp		RYING OVEN 2_150409A	10	R105402
3050 EXTRACTABLE METALS											
Aluminum	4230	mg/kg-dry		5		SW6010B	04/13/15 12:39 / sld	04/09/15 09:46	ICP2-HE_150413B	23	28623
Antimony	ND	mg/kg-dry		5		SW6020	04/13/15 16:35 / dck	04/09/15 09:46	ICPMS204-B_150413C	40	28623
Arsenic	58	mg/kg-dry		5		SW6020	04/13/15 16:35 / dck	04/09/15 09:46	ICPMS204-B_150413C	40	28623
Barium	64	mg/kg-dry		5		SW6010B	04/20/15 12:34 / sld	04/16/15 16:48	ICP2-HE_150420B	23	28681
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 12:39 / sld	04/09/15 09:46	ICP2-HE_150413B	23	28623
Boron	ND	mg/kg-dry		5		SW6010B	04/22/15 15:57 / sld	04/21/15 11:02	ICP2-HE_150422C	36	28717
Cadmium	1.0	mg/kg-dry		0.2		SW6020	04/13/15 16:35 / dck	04/09/15 09:46	ICPMS204-B_150413C	40	28623
Chromium	6	mg/kg-dry		5		SW6020	04/13/15 16:35 / dck	04/09/15 09:46	ICPMS204-B_150413C	40	28623
Cobalt	ND	mg/kg-dry		5		SW6010B	04/13/15 12:39 / sld	04/09/15 09:46	ICP2-HE_150413B	23	28623
Copper	536	mg/kg-dry		5		SW6010B	04/13/15 12:39 / sld	04/09/15 09:46	ICP2-HE_150413B	23	28623
Iron	15600	mg/kg-dry		5		SW6010B	04/13/15 12:39 / sld	04/09/15 09:46	ICP2-HE_150413B	23	28623
Lead	86	mg/kg-dry		5		SW6010B	04/22/15 15:57 / sld	04/21/15 11:02	ICP2-HE_150422C	36	28717
Manganese	266	mg/kg-dry		5		SW6010B	04/13/15 12:39 / sld	04/09/15 09:46	ICP2-HE_150413B	23	28623
Molybdenum	ND	mg/kg-dry		5		SW6020	04/13/15 16:35 / dck	04/09/15 09:46	ICPMS204-B_150413C	40	28623
Nickel	ND	mg/kg-dry		5		SW6010B	04/13/15 12:39 / sld	04/09/15 09:46	ICP2-HE_150413B	23	28623
Selenium	ND	mg/kg-dry		5		SW6020	04/13/15 16:35 / dck	04/09/15 09:46	ICPMS204-B_150413C	40	28623
Silver	ND	mg/kg-dry		5		SW6020	04/14/15 15:45 / dck	04/09/15 09:46	ICPMS204-B_150414B	106	28623
Uranium	ND	mg/kg-dry		5		SW6020	04/14/15 12:00 / dck	04/09/15 09:46	ICPMS204-B_150414B	38	28623
Vanadium	24	mg/kg-dry	D	6		SW6020	04/14/15 12:00 / dck	04/09/15 09:46	ICPMS204-B_150414B	38	28623
Zinc	448	mg/kg-dry		5		SW6010B	04/22/15 15:57 / sld	04/21/15 11:02	ICP2-HE_150422C	36	28717
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/10/15 14:51 / rgk	04/08/15 11:28	HGCV201-H_150410A	75	28616

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G Sediment Sieve <0.065mm
Lab ID: H15030393-012
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 14:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	7.8	wt% Passed		0.1		ASA15-2	04/07/15 08:25 / edp		MISC SOILS_150407C	7	R105484
PHYSICAL CHARACTERISTICS											
Moisture	60.3	wt%		0.2		D2974	04/10/15 09:45 / edp		RYING OVEN 2_150409A	11	R105402
3050 EXTRACTABLE METALS											
Aluminum	26300	mg/kg-dry		9		SW6010B	04/13/15 15:07 / sld	04/09/15 09:58	ICP2-HE_150413B	63	28625
Antimony	ND	mg/kg-dry		5		SW6020	04/14/15 13:04 / dck	04/09/15 09:58	ICPMS204-B_150414B	63	28625
Arsenic	55	mg/kg-dry		5		SW6020	04/14/15 13:04 / dck	04/09/15 09:58	ICPMS204-B_150414B	63	28625
Barium	282	mg/kg-dry		5		SW6010B	04/13/15 15:07 / sld	04/09/15 09:58	ICP2-HE_150413B	63	28625
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 15:07 / sld	04/09/15 09:58	ICP2-HE_150413B	63	28625
Boron	12	mg/kg-dry		5		SW6010B	04/13/15 15:07 / sld	04/09/15 09:58	ICP2-HE_150413B	63	28625
Cadmium	ND	mg/kg-dry	D	2		SW6020	04/14/15 13:04 / dck	04/09/15 09:58	ICPMS204-B_150414B	63	28625
Chromium	72	mg/kg-dry		5		SW6020	04/14/15 13:04 / dck	04/09/15 09:58	ICPMS204-B_150414B	63	28625
Cobalt	ND	mg/kg-dry		5		SW6010B	04/13/15 15:07 / sld	04/09/15 09:58	ICP2-HE_150413B	63	28625
Copper	84	mg/kg-dry		5		SW6010B	04/13/15 15:07 / sld	04/09/15 09:58	ICP2-HE_150413B	63	28625
Iron	22700	mg/kg-dry		8		SW6010B	04/13/15 15:07 / sld	04/09/15 09:58	ICP2-HE_150413B	63	28625
Lead	134	mg/kg-dry		5		SW6020	04/14/15 13:04 / dck	04/09/15 09:58	ICPMS204-B_150414B	63	28625
Manganese	704	mg/kg-dry		5		SW6010B	04/13/15 15:07 / sld	04/09/15 09:58	ICP2-HE_150413B	63	28625
Molybdenum	ND	mg/kg-dry		5		SW6020	04/14/15 13:04 / dck	04/09/15 09:58	ICPMS204-B_150414B	63	28625
Nickel	36	mg/kg-dry		5		SW6010B	04/13/15 15:07 / sld	04/09/15 09:58	ICP2-HE_150413B	63	28625
Selenium	6	mg/kg-dry		5		SW6020	04/14/15 13:04 / dck	04/09/15 09:58	ICPMS204-B_150414B	63	28625
Silver	ND	mg/kg-dry		5		SW6020	04/14/15 15:47 / dck	04/09/15 09:58	ICPMS204-B_150414B	107	28625
Uranium	ND	mg/kg-dry		5		SW6020	04/14/15 13:04 / dck	04/09/15 09:58	ICPMS204-B_150414B	63	28625
Vanadium	71	mg/kg-dry	D	10		SW6020	04/14/15 13:04 / dck	04/09/15 09:58	ICPMS204-B_150414B	63	28625
Zinc	112	mg/kg-dry		5		SW6010B	04/13/15 15:07 / sld	04/09/15 09:58	ICP2-HE_150413B	63	28625
METALS, TOTAL											
Mercury	0.18	mg/kg-dry		0.10		SW7471B	04/10/15 14:53 / rgk	04/08/15 11:28	HGCV201-H_150410A	76	28616

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G Sediment Sieve 1mm-0.063mm
Lab ID: H15030393-013
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 14:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	61.5	wt% retained		0.1		ASA15-2	04/07/15 08:25 / edp		MISC SOILS_150407C	8	R105484
PHYSICAL CHARACTERISTICS											
Moisture	28.9	wt%		0.2		D2974	04/10/15 09:45 / edp		RYING OVEN 2_150409A	12	R105402
3050 EXTRACTABLE METALS											
Aluminum	10600	mg/kg-dry		5		SW6010B	04/13/15 14:12 / sld	04/09/15 09:52	ICP2-HE_150413B	48	28624
Antimony	ND	mg/kg-dry		5		SW6020	04/13/15 22:00 / dck	04/09/15 09:52	ICPMS204-B_150413C	77	28624
Arsenic	30	mg/kg-dry		5		SW6020	04/13/15 22:00 / dck	04/09/15 09:52	ICPMS204-B_150413C	77	28624
Barium	181	mg/kg-dry		5		SW6010B	04/13/15 14:12 / sld	04/09/15 09:52	ICP2-HE_150413B	48	28624
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 14:12 / sld	04/09/15 09:52	ICP2-HE_150413B	48	28624
Boron	ND	mg/kg-dry		5		SW6010B	04/13/15 14:12 / sld	04/09/15 09:52	ICP2-HE_150413B	48	28624
Cadmium	0.3	mg/kg-dry		0.2		SW6020	04/13/15 22:00 / dck	04/09/15 09:52	ICPMS204-B_150413C	77	28624
Chromium	17	mg/kg-dry		5		SW6020	04/13/15 22:00 / dck	04/09/15 09:52	ICPMS204-B_150413C	77	28624
Cobalt	ND	mg/kg-dry		5		SW6010B	04/13/15 14:12 / sld	04/09/15 09:52	ICP2-HE_150413B	48	28624
Copper	24	mg/kg-dry		5		SW6010B	04/13/15 14:12 / sld	04/09/15 09:52	ICP2-HE_150413B	48	28624
Iron	14500	mg/kg-dry		5		SW6010B	04/13/15 14:12 / sld	04/09/15 09:52	ICP2-HE_150413B	48	28624
Lead	13	mg/kg-dry		5		SW6020	04/13/15 22:00 / dck	04/09/15 09:52	ICPMS204-B_150413C	77	28624
Manganese	207	mg/kg-dry		5		SW6010B	04/13/15 14:12 / sld	04/09/15 09:52	ICP2-HE_150413B	48	28624
Molybdenum	ND	mg/kg-dry		5		SW6020	04/13/15 22:00 / dck	04/09/15 09:52	ICPMS204-B_150413C	77	28624
Nickel	9	mg/kg-dry		5		SW6010B	04/13/15 14:12 / sld	04/09/15 09:52	ICP2-HE_150413B	48	28624
Selenium	ND	mg/kg-dry		5		SW6020	04/13/15 22:00 / dck	04/09/15 09:52	ICPMS204-B_150413C	77	28624
Silver	ND	mg/kg-dry		5		SW6020	04/13/15 22:00 / dck	04/09/15 09:52	ICPMS204-B_150413C	77	28624
Uranium	ND	mg/kg-dry		5		SW6020	04/14/15 12:30 / dck	04/09/15 09:52	ICPMS204-B_150414B	50	28624
Vanadium	39	mg/kg-dry	D	7		SW6020	04/14/15 12:30 / dck	04/09/15 09:52	ICPMS204-B_150414B	50	28624
Zinc	59	mg/kg-dry	D	10		SW6020	04/13/15 22:00 / dck	04/09/15 09:52	ICPMS204-B_150413C	77	28624
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/10/15 14:56 / rgk	04/08/15 11:28	HGCV201-H_150410A	77	28616

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G Sediment Sieve 2mm-1mm
Lab ID: H15030393-014
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 14:00
DateReceived: 03/30/15
Report Date: 04/24/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	11.0	wt% retained		0.1		ASA15-2	04/07/15 08:25 / edp		MISC SOILS_150407C	9	R105484
PHYSICAL CHARACTERISTICS											
Moisture	18.6	wt%		0.2		D2974	04/10/15 09:45 / edp		RYING OVEN 2_150409A	13	R105402
3050 EXTRACTABLE METALS											
Aluminum	8460	mg/kg-dry		5		SW6010B	04/13/15 13:16 / sld	04/09/15 09:46	ICP2-HE_150413B	33	28623
Antimony	ND	mg/kg-dry		5		SW6020	04/13/15 16:38 / dck	04/09/15 09:46	ICPMS204-B_150413C	41	28623
Arsenic	27	mg/kg-dry		5		SW6020	04/13/15 16:38 / dck	04/09/15 09:46	ICPMS204-B_150413C	41	28623
Barium	128	mg/kg-dry		5		SW6010B	04/13/15 13:16 / sld	04/09/15 09:46	ICP2-HE_150413B	33	28623
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 13:16 / sld	04/09/15 09:46	ICP2-HE_150413B	33	28623
Boron	ND	mg/kg-dry		5		SW6010B	04/13/15 13:16 / sld	04/09/15 09:46	ICP2-HE_150413B	33	28623
Cadmium	ND	mg/kg-dry		0.2		SW6020	04/13/15 16:38 / dck	04/09/15 09:46	ICPMS204-B_150413C	41	28623
Chromium	14	mg/kg-dry		5		SW6020	04/13/15 16:38 / dck	04/09/15 09:46	ICPMS204-B_150413C	41	28623
Cobalt	ND	mg/kg-dry		5		SW6010B	04/13/15 13:16 / sld	04/09/15 09:46	ICP2-HE_150413B	33	28623
Copper	26	mg/kg-dry		5		SW6010B	04/13/15 13:16 / sld	04/09/15 09:46	ICP2-HE_150413B	33	28623
Iron	11600	mg/kg-dry		5		SW6010B	04/13/15 13:16 / sld	04/09/15 09:46	ICP2-HE_150413B	33	28623
Lead	ND	mg/kg-dry		5		SW6020	04/13/15 16:38 / dck	04/09/15 09:46	ICPMS204-B_150413C	41	28623
Manganese	139	mg/kg-dry		5		SW6010B	04/13/15 13:16 / sld	04/09/15 09:46	ICP2-HE_150413B	33	28623
Molybdenum	ND	mg/kg-dry		5		SW6020	04/13/15 16:38 / dck	04/09/15 09:46	ICPMS204-B_150413C	41	28623
Nickel	9	mg/kg-dry		5		SW6010B	04/13/15 13:16 / sld	04/09/15 09:46	ICP2-HE_150413B	33	28623
Selenium	ND	mg/kg-dry		5		SW6020	04/13/15 16:38 / dck	04/09/15 09:46	ICPMS204-B_150413C	41	28623
Silver	ND	mg/kg-dry		5		SW6020	04/14/15 15:50 / dck	04/09/15 09:46	ICPMS204-B_150414B	108	28623
Uranium	ND	mg/kg-dry		5		SW6020	04/14/15 12:02 / dck	04/09/15 09:46	ICPMS204-B_150414B	39	28623
Vanadium	24	mg/kg-dry		1		SW6010B	04/22/15 16:01 / sld	04/21/15 11:02	ICP2-HE_150422C	37	28717
Zinc	96	mg/kg-dry		5		SW6010B	04/20/15 12:37 / sld	04/16/15 16:48	ICP2-HE_150420B	24	28681
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/10/15 14:58 / rgk	04/08/15 11:28	HGCV201-H_150410A	78	28616

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150331A-SLDS-VSS-W

Date: *24-Apr-15*

Run ID :Run Order: **MISC WC_150331A: 1** SampType: **Method Blank** Lab ID: **MBLK1_150331A** Method: **A2540 E**

Analysis Date: **03/31/15 10:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	ND	1									

Associated samples: **H15030393-001A, H15030393-002A, H15030393-003A, H15030393-004A, H15030393-005A**

Run ID :Run Order: **MISC WC_150331A: 6** SampType: **Sample Duplicate** Lab ID: **H15030393-004ADUP** Method: **A2540 E**

Analysis Date: **03/31/15 10:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	5	10		0				4.8		30	

Associated samples: **H15030393-001A, H15030393-002A, H15030393-003A, H15030393-004A, H15030393-005A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150406wa

Date: *24-Apr-15*

Run ID :Run Order: **HGCV202-H_150406A: 8** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **04/06/15 12:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00021	0.00010	0.0002	0	**105**	90	110				

Associated samples: **H15030393-001C, H15030393-001D, H15030393-002C, H15030393-002D, H15030393-004C, H15030393-004D, H15030393-005C, H15030393-005D**

Run ID :Run Order: **HGCV202-H_150406A: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1** Method: **E245.1**

Analysis Date: **04/06/15 12:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00021	0.00010	0.0002	0	**105**	95	105				

Associated samples: **H15030393-001C, H15030393-001D, H15030393-002C, H15030393-002D, H15030393-004C, H15030393-004D, H15030393-005C, H15030393-005D**

Run ID :Run Order: **HGCV202-H_150406A: 21** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E245.1**

Analysis Date: **04/06/15 13:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00022	0.00010	0.0002	0	**109**	90	110				

Associated samples: **H15030393-001C, H15030393-001D, H15030393-002C, H15030393-002D, H15030393-004C, H15030393-004D, H15030393-005C, H15030393-005D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150410sa

Date: *24-Apr-15*

Run ID :Run Order: **HGCV201-H_150410A: 61** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **04/10/15 14:04** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0011	0.50	0.001	0	**106**	90	110				

Associated samples: **H15030393-006A, H15030393-007A, H15030393-008A, H15030393-009A, H15030393-010A, H15030393-011A, H15030393-012A, H15030393-013A, H15030393-014A**

Run ID :Run Order: **HGCV201-H_150410A: 62** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **04/10/15 14:07** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	**101**	90	110				

Associated samples: **H15030393-006A, H15030393-007A, H15030393-008A, H15030393-009A, H15030393-010A, H15030393-011A, H15030393-012A, H15030393-013A, H15030393-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150413wa

Date: *24-Apr-15*

Run ID :Run Order: **HGCV202-H_150413A: 23** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **04/13/15 14:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00018	0.00010	0.0002	0	**91**	90	110				

Associated samples: **H15030393-003C, H15030393-003D**

Run ID :Run Order: **HGCV202-H_150413A: 24** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1** Method: **E245.1**

Analysis Date: **04/13/15 14:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002	0	**101**	95	105				

Associated samples: **H15030393-003C, H15030393-003D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28542

Date: *24-Apr-15*

Run ID :Run Order: **FIA203-HE_150401A: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-28542** Method: **A4500 N-C**
Analysis Date: **04/01/15 07:56** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	16.4	0.30	15.2	0	**108**	90	110				

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **FIA203-HE_150401A: 12** SampType: **Method Blank** Lab ID: **MB-28542** Method: **A4500 N-C**
Analysis Date: **04/01/15 07:57** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	ND	0.005									

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **FIA203-HE_150401A: 16** SampType: **Sample Matrix Spike** Lab ID: **H15030393-003Bms** Method: **A4500 N-C**
Analysis Date: **04/01/15 08:02** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	1.00	0.10	1	0	**100**	90	110				

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **FIA203-HE_150401A: 17** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-003Bmsd** Method: **A4500 N-C**
Analysis Date: **04/01/15 08:03** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.985	0.10	1	0	**99**	90	110	1.002	**1.7**	20	

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28544

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150401B: 26** SampType: **Method Blank** Lab ID: **MB-28544** Method: **E200.7**

Analysis Date: **04/01/15 14:29** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.004	0.002									
Calcium	0.07	0.06									
Magnesium	ND	0.02									
Potassium	ND	0.07									
Sodium	ND	0.01									

Associated samples: **H15030393-001D, H15030393-002D, H15030393-003D, H15030393-004D, H15030393-005D**

Run ID :Run Order: **ICP2-HE_150401B: 27** SampType: **Laboratory Control Sample** Lab ID: **LCS-28544** Method: **E200.7**

Analysis Date: **04/01/15 14:33** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.515	0.050	0.5	0.00445	102	85	115				
Calcium	26.1	1.0	25	0.06831	104	85	115				
Magnesium	26.3	1.0	25	0	105	85	115				
Potassium	26.3	1.0	25	0	105	85	115				
Sodium	26.3	1.0	25	0	105	85	115				

Associated samples: **H15030393-001D, H15030393-002D, H15030393-003D, H15030393-004D, H15030393-005D**

Run ID :Run Order: **ICP2-HE_150401B: 44** SampType: **Serial Dilution** Lab ID: **H15030393-002DDIL** Method: **E200.7**

Analysis Date: **04/01/15 15:38** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.0159	0.050		0		0	0	0.01489		10	N
Calcium	26.2	1.0		0		0	0	27.7	5.7	10	
Magnesium	6.03	1.0		0		0	0	6.47	7.1	10	
Potassium	1.82	1.0		0		0	0	2.475		10	N
Sodium	9.23	1.0		0		0	0	10.08	8.9	10	

Associated samples: **H15030393-001D, H15030393-002D, H15030393-003D, H15030393-004D, H15030393-005D**

Run ID :Run Order: **ICP2-HE_150401B: 45** SampType: **Sample Matrix Spike** Lab ID: **H15030393-002DMS3** Method: **E200.7**

Analysis Date: **04/01/15 15:42** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.533	0.050	0.5	0.01489	104	70	130				
Calcium	53.3	1.0	25	27.7	102	70	130				
Magnesium	32.6	1.0	25	6.47	104	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28544

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150401B: 45** SampType: **Sample Matrix Spike** Lab ID: **H15030393-002DMS3** Method: **E200.7**

Analysis Date: **04/01/15 15:42** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	28.9	1.0	25	2.475	**106**	70	130				
Sodium	36.5	1.0	25	10.08	**106**	70	130				

Associated samples: **H15030393-001D, H15030393-002D, H15030393-003D, H15030393-004D, H15030393-005D**

Run ID :Run Order: **ICP2-HE_150401B: 46** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-002DMSD3** Method: **E200.7**

Analysis Date: **04/01/15 15:45** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.526	0.050	0.5	0.01489	**102**	70	130	0.5334	**1.4**	20	
Calcium	52.8	1.0	25	27.7	**100**	70	130	53.32	**1.0**	20	
Magnesium	32.2	1.0	25	6.47	**103**	70	130	32.58	**1.1**	20	
Potassium	28.1	1.0	25	2.475	**102**	70	130	28.91	**2.9**	20	
Sodium	35.5	1.0	25	10.08	**102**	70	130	36.46	**2.5**	20	

Associated samples: **H15030393-001D, H15030393-002D, H15030393-003D, H15030393-004D, H15030393-005D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28544

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150406A: 74** SampType: **Method Blank** Lab ID: **MB-28544** Method: **E200.8**

Analysis Date: **04/06/15 12:26** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	7E-05	6E-05									
Arsenic	0.0001	6E-05									
Barium	0.0002	0.0001									
Beryllium	ND	0.0003									
Boron	ND	0.002									
Cadmium	ND	1E-05									
Calcium	ND	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	0.0005	0.0002									
Iron	0.003	0.002									
Lead	5E-05	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	ND	4E-05									
Nickel	5E-05	3E-05									
Potassium	ND	0.02									
Selenium	ND	0.0004									
Silver	5E-05	5E-05									
Sodium	0.05	0.004									
Uranium	ND	5E-05									
Vanadium	0.001	0.0001									
Zinc	0.002	0.002									

Associated samples: **H15030393-001D, H15030393-002D, H15030393-003D, H15030393-004D, H15030393-005D**

Run ID :Run Order: **ICPMS204-B_150406A: 75** SampType: **Laboratory Control Sample** Lab ID: **LCS-28544** Method: **E200.8**

Analysis Date: **04/06/15 12:29** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.70	0.030	2.5	0	**108**	85	115				
Antimony	0.566	0.0010	0.5	0.0000749	**113**	85	115				
Arsenic	0.558	0.0010	0.5	0.0001039	**112**	85	115				
Barium	0.554	0.050	0.5	0.000173	**111**	85	115				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28544

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150406A: 75** SampType: **Laboratory Control Sample** Lab ID: **LCS-28544** Method: **E200.8**

Analysis Date: **04/06/15 12:29** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.277	0.0010	0.25	0	111	85	115				
Boron	0.569	0.050	0.5	0	114	85	115				
Cadmium	0.278	0.0010	0.25	0	111	85	115				
Calcium	27.7	1.0	25	0	111	85	115				
Chromium	0.567	0.0050	0.5	0	113	85	115				
Cobalt	0.550	0.0050	0.5	0	110	85	115				
Copper	0.540	0.0050	0.5	0.0005156	108	85	115				
Iron	2.69	0.020	2.5	0.002828	108	85	115				
Lead	0.562	0.0010	0.5	0.0000521	112	85	115				
Magnesium	27.4	1.0	25	0	110	85	115				
Manganese	2.70	0.0010	2.5	0	108	85	115				
Molybdenum	0.558	0.0010	0.5	0	112	85	115				
Nickel	0.544	0.0050	0.5	0.000046	109	85	115				
Potassium	26.8	1.0	25	0	107	85	115				
Selenium	0.570	0.0010	0.5	0	114	85	115				
Silver	0.0532	0.0010	0.05	0.0000513	106	85	115				
Sodium	26.8	1.0	25	0.05466	107	85	115				
Uranium	0.561	0.00030	0.5	0	112	85	115				
Vanadium	0.566	0.010	0.5	0.00138	113	85	115				
Zinc	0.548	0.010	0.5	0.0021	109	85	115				

Associated samples: **H15030393-001D, H15030393-002D, H15030393-003D, H15030393-004D, H15030393-005D**

Run ID :Run Order: **ICPMS204-B_150406A: 81** SampType: **Sample Matrix Spike** Lab ID: **H15030393-002DMS3** Method: **E200.8**

Analysis Date: **04/06/15 12:44** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.95	0.030	2.5	0.2506	108	70	130				
Antimony	0.564	0.0010	0.5	0.0005104	113	70	130				
Arsenic	0.545	0.0010	0.5	0.004478	108	70	130				
Barium	0.596	0.050	0.5	0.04267	111	70	130				
Beryllium	0.276	0.0010	0.25	0	110	70	130				
Boron	0.584	0.050	0.5	0.01754	113	70	130				
Cadmium	0.272	0.0010	0.25	0.0000262	109	70	130				
Calcium	54.1	1.0	25	28.38	103	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28544

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150406A: 81** SampType: **Sample Matrix Spike** Lab ID: **H15030393-002DMS3** Method: **E200.8**

Analysis Date: **04/06/15 12:44** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.554	0.0050	0.5	0.000677	111	70	130				
Cobalt	0.538	0.0050	0.5	0.0002697	108	70	130				
Copper	0.526	0.0050	0.5	0.006337	104	70	130				
Iron	3.53	0.020	2.5	0.8869	106	70	130				
Lead	0.550	0.0010	0.5	0.000897	110	70	130				
Magnesium	33.5	1.0	25	6.912	106	70	130				
Manganese	2.71	0.0010	2.5	0.05594	106	70	130				
Molybdenum	0.556	0.0010	0.5	0.005379	110	70	130				
Nickel	0.528	0.0050	0.5	0.0005437	106	70	130				
Potassium	28.6	1.0	25	2.672	104	70	130				
Selenium	0.542	0.0010	0.5	0	108	70	130				
Silver	0.0512	0.0010	0.05	0	102	70	130				
Sodium	36.4	1.0	25	10.28	105	70	130				
Uranium	0.562	0.00030	0.5	0.003012	112	70	130				
Vanadium	0.556	0.010	0.5	0.005218	110	70	130				
Zinc	0.528	0.010	0.5	0.008983	104	70	130				

Associated samples: **H15030393-001D, H15030393-002D, H15030393-003D, H15030393-004D, H15030393-005D**

Run ID :Run Order: **ICPMS204-B_150406A: 82** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-002DMSD3** Method: **E200.8**

Analysis Date: **04/06/15 12:46** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.95	0.030	2.5	0.2506	108	70	130	2.954	0.2	20	
Antimony	0.564	0.0010	0.5	0.0005104	113	70	130	0.5638	0.0	20	
Arsenic	0.547	0.0010	0.5	0.004478	108	70	130	0.5455	0.2	20	
Barium	0.589	0.050	0.5	0.04267	109	70	130	0.5961	1.2	20	
Beryllium	0.279	0.0010	0.25	0	112	70	130	0.2755	1.3	20	
Boron	0.576	0.050	0.5	0.01754	112	70	130	0.5842	1.5	20	
Cadmium	0.269	0.0010	0.25	0.0000262	108	70	130	0.2717	1.0	20	
Calcium	54.1	1.0	25	28.38	103	70	130	54.1	0.1	20	
Chromium	0.555	0.0050	0.5	0.000677	111	70	130	0.5537	0.3	20	
Cobalt	0.540	0.0050	0.5	0.0002697	108	70	130	0.5384	0.3	20	
Copper	0.522	0.0050	0.5	0.006337	103	70	130	0.526	0.8	20	
Iron	3.55	0.020	2.5	0.8869	106	70	130	3.528	0.5	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28544

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150406A: 82** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-002DMSD3** Method: **E200.8**

Analysis Date: **04/06/15 12:46** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.550	0.0010	0.5	0.000897	**110**	70	130	0.5502	**0.0**	20	
Magnesium	33.4	1.0	25	6.912	**106**	70	130	33.5	**0.2**	20	
Manganese	2.70	0.0010	2.5	0.05594	**106**	70	130	2.712	**0.5**	20	
Molybdenum	0.572	0.0010	0.5	0.005379	**113**	70	130	0.5562	**2.8**	20	
Nickel	0.528	0.0050	0.5	0.0005437	**105**	70	130	0.5285	**0.2**	20	
Potassium	28.7	1.0	25	2.672	**104**	70	130	28.65	**0.3**	20	
Selenium	0.540	0.0010	0.5	0	**108**	70	130	0.5423	**0.5**	20	
Silver	0.0516	0.0010	0.05	0	**103**	70	130	0.0512	**0.8**	20	
Sodium	36.4	1.0	25	10.28	**104**	70	130	36.44	**0.1**	20	
Uranium	0.572	0.00030	0.5	0.003012	**114**	70	130	0.5622	**1.7**	20	
Vanadium	0.559	0.010	0.5	0.005218	**111**	70	130	0.5563	**0.5**	20	
Zinc	0.531	0.010	0.5	0.008983	**104**	70	130	0.528	**0.5**	20	

Associated samples: **H15030393-001D, H15030393-002D, H15030393-003D, H15030393-004D, H15030393-005D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28547

Date: *24-Apr-15*

Run ID :Run Order: **FIA202-HE_150401A: 12** SampType: **Laboratory Control Sample** Lab ID: **LCS-28547** Method: **E365.1**
Analysis Date: **04/01/15 07:55** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.429	0.010	0.4	0.00142	107	90	110				

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA202-HE_150401A: 13** SampType: **Method Blank** Lab ID: **MB-28547** Method: **E365.1**
Analysis Date: **04/01/15 07:56** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.001	0.001									

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA202-HE_150401A: 17** SampType: **Sample Matrix Spike** Lab ID: **H15030393-003EMS** Method: **E365.1**
Analysis Date: **04/01/15 08:00** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.210	0.010	0.2	0.00264	103	90	110				

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA202-HE_150401A: 18** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-003EMSD** Method: **E365.1**
Analysis Date: **04/01/15 08:01** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.202	0.010	0.2	0.00264	100	90	110	0.2096	3.7	20	

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28571

Date: *24-Apr-15*

Run ID :Run Order: **HGCV202-H_150406A: 11** SampType: **Method Blank** Lab ID: **MB-28571** Method: **E245.1**
Analysis Date: **04/06/15 12:41** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5E-06	1E-06									

Associated samples: **H15030393-001C, H15030393-001D, H15030393-002C, H15030393-002D, H15030393-004C, H15030393-004D, H15030393-005C, H15030393-005D**

Run ID :Run Order: **HGCV202-H_150406A: 12** SampType: **Laboratory Control Sample** Lab ID: **LCS-28571** Method: **E245.1**
Analysis Date: **04/06/15 12:44** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00014	0.00010	0.00015	0.00000498	92	90	110				

Associated samples: **H15030393-001C, H15030393-001D, H15030393-002C, H15030393-002D, H15030393-004C, H15030393-004D, H15030393-005C, H15030393-005D**

Run ID :Run Order: **HGCV202-H_150406A: 14** SampType: **Sample Matrix Spike** Lab ID: **H15030382-023BMS** Method: **E245.1**
Analysis Date: **04/06/15 12:52** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00016	0.00010	0.00015	0.00000712	99	70	130				

Associated samples: **H15030393-001C, H15030393-001D, H15030393-002C, H15030393-002D, H15030393-004C, H15030393-004D, H15030393-005C, H15030393-005D**

Run ID :Run Order: **HGCV202-H_150406A: 15** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030382-023BMSD** Method: **E245.1**
Analysis Date: **04/06/15 12:55** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00016	0.00010	0.00015	0.00000712	104	70	130	0.0001555	4.9	20	

Associated samples: **H15030393-001C, H15030393-001D, H15030393-002C, H15030393-002D, H15030393-004C, H15030393-004D, H15030393-005C, H15030393-005D**

Run ID :Run Order: **HGCV202-H_150406A: 24** SampType: **Sample Matrix Spike** Lab ID: **H15030393-002CMS** Method: **E245.1**
Analysis Date: **04/06/15 13:29** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00015	0.00010	0.00015	0.00000736	96	70	130				

Associated samples: **H15030393-001C, H15030393-001D, H15030393-002C, H15030393-002D, H15030393-004C, H15030393-004D, H15030393-005C, H15030393-005D**

Run ID :Run Order: **HGCV202-H_150406A: 25** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-002CMSD** Method: **E245.1**
Analysis Date: **04/06/15 13:33** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00017	0.00010	0.00015	0.00000736	105	70	130	0.0001517	8.7	20	

Associated samples: **H15030393-001C, H15030393-001D, H15030393-002C, H15030393-002D, H15030393-004C, H15030393-004D, H15030393-005C, H15030393-005D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28616

Date: *24-Apr-15*

Run ID :Run Order: **HGCV201-H_150410A: 64** SampType: **Method Blank** Lab ID: **MB-28616** Method: **SW7471B**
Analysis Date: **04/10/15 14:22** Units: **mg/kg** **Prep Info:** Prep Date: **4/8/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.002									

Associated samples: **H15030393-006A, H15030393-007A, H15030393-008A, H15030393-009A, H15030393-010A, H15030393-011A, H15030393-012A, H15030393-013A, H15030393-014A**

Run ID :Run Order: **HGCV201-H_150410A: 65** SampType: **Laboratory Control Sample** Lab ID: **LCS-28616** Method: **SW7471B**
Analysis Date: **04/10/15 14:24** Units: **mg/kg** **Prep Info:** Prep Date: **4/8/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.3	0.50	4.98	0	87	80	120				

Associated samples: **H15030393-006A, H15030393-007A, H15030393-008A, H15030393-009A, H15030393-010A, H15030393-011A, H15030393-012A, H15030393-013A, H15030393-014A**

Run ID :Run Order: **HGCV201-H_150410A: 66** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28616** Method: **SW7471B**
Analysis Date: **04/10/15 14:27** Units: **mg/kg** **Prep Info:** Prep Date: **4/8/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.95	0.50	1	0	95	80	120				

Associated samples: **H15030393-006A, H15030393-007A, H15030393-008A, H15030393-009A, H15030393-010A, H15030393-011A, H15030393-012A, H15030393-013A, H15030393-014A**

Run ID :Run Order: **HGCV201-H_150410A: 68** SampType: **Sample Matrix Spike** Lab ID: **H15030393-006AMS** Method: **SW7471B**
Analysis Date: **04/10/15 14:32** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/8/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.0	0.50	1.925	0.1327	97	80	120				

Associated samples: **H15030393-006A, H15030393-007A, H15030393-008A, H15030393-009A, H15030393-010A, H15030393-011A, H15030393-012A, H15030393-013A, H15030393-014A**

Run ID :Run Order: **HGCV201-H_150410A: 69** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-006AMSD** Method: **SW7471B**
Analysis Date: **04/10/15 14:35** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/8/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.0	0.50	1.923	0.1327	95	80	120	2.005	2.8	20	

Associated samples: **H15030393-006A, H15030393-007A, H15030393-008A, H15030393-009A, H15030393-010A, H15030393-011A, H15030393-012A, H15030393-013A, H15030393-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28623

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 19** SampType: **Method Blank** Lab ID: **MB-28623** Method: **SW6010B**

Analysis Date: **04/13/15 12:24** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.4	0.3									
Barium	0.03	0.02									
Beryllium	ND	0.009									
Boron	ND	0.1									
Cobalt	ND	0.1									
Copper	0.3	0.2									
Iron	5	0.6									
Manganese	ND	0.02									
Nickel	ND	0.07									

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150413B: 20** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28623** Method: **SW6010B**

Analysis Date: **04/13/15 12:28** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	253	5.0	250	0.3545	**101**	80	120				
Barium	49.8	1.0	50	0.03	**100**	80	120				
Beryllium	25.0	1.0	25	0	**100**	80	120				
Boron	48.3	1.0	50	0	**97**	80	120				
Cobalt	47.6	1.0	50	0	**95**	80	120				
Copper	49.3	1.0	50	0.3095	**98**	80	120				
Iron	249	5.0	250	4.836	**98**	80	120				
Manganese	242	1.0	250	0	**97**	80	120				
Nickel	46.6	1.0	50	0	**93**	80	120				

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150413B: 21** SampType: **Laboratory Control Sample** Lab ID: **LCS-28623** Method: **SW6010B**

Analysis Date: **04/13/15 12:31** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	12600	5.0	14700	0.3545	**86**	50.7	131.3				
Barium	553	1.0	614	0.03	**90**	80.6	112.2				
Beryllium	45.0	1.0	51	0	**88**	76.3	108.6				
Boron	72.0	1.0	93.2	0	**77**	59.4	101.9				
Cobalt	47.4	1.0	57.4	0	**83**	73.3	103.7				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28623

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 21** SampType: **Laboratory Control Sample** Lab ID: **LCS-28623** Method: **SW6010B**

Analysis Date: **04/13/15 12:31** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	247	1.1	280	0.3095	88	77.5	109.6				
Iron	19100	5.0	23000	4.836	83	39.6	138.3				
Manganese	358	1.0	369	0	97	80.8	115.7				
Nickel	50.0	1.0	61	0	82	72.3	103.4				

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150413B: 35** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030393-014APDS** Method: **SW6010B**

Analysis Date: **04/13/15 13:24** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	10100	5.0	1598	8459		75	125				A
Barium	428	1.0	319.6	128.3	94	75	125				
Beryllium	148	1.0	159.8	0.3307	92	75	125				
Boron	293	1.0	319.6	2.918	91	75	125				
Cobalt	285	1.0	319.6	0.8694	89	75	125				
Copper	321	1.4	319.6	26.31	92	75	125				
Iron	13100	5.0	1598	11620		75	125				A
Manganese	1580	1.0	1598	139.5	90	75	125				
Nickel	285	1.0	319.6	9.249	86	75	125				

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150413B: 36** SampType: **Sample Matrix Spike** Lab ID: **H15030393-014AMS** Method: **SW6010B**

Analysis Date: **04/13/15 13:27** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	10600	5.0	310.3	8459		75	125				A
Barium	211	1.0	62.05	128.3	134	75	125				S
Beryllium	31.4	1.0	31.03	0.3307	100	75	125				
Boron	61.0	1.0	62.05	2.918	94	75	125				
Cobalt	60.5	1.0	62.05	0.8694	96	75	125				
Copper	72.4	1.4	62.05	26.31	74	75	125				S
Iron	11500	5.0	310.3	11620		75	125				A
Manganese	445	1.0	310.3	139.5	98	75	125				
Nickel	67.2	1.0	62.05	9.249	93	75	125				

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28623

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 37** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-014AMSD** Method: **SW6010B**

Analysis Date: **04/13/15 13:31** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9640	5.0	310.3	8459		75	125	10560	9.1	20	A
Barium	201	1.0	62.05	128.3	117	75	125	211.3	5.0	20	
Beryllium	31.4	1.0	31.03	0.3307	100	75	125	31.44	0.1	20	
Boron	59.2	1.0	62.05	2.918	91	75	125	60.99	3.0	20	
Cobalt	58.4	1.0	62.05	0.8694	93	75	125	60.52	3.6	20	
Copper	71.9	1.4	62.05	26.31	73	75	125	72.38	0.7	20	S
Iron	9720	5.0	310.3	11620		75	125	11470	17	20	A
Manganese	451	1.0	310.3	139.5	100	75	125	445	1.4	20	
Nickel	63.8	1.0	62.05	9.249	88	75	125	67.16	5.1	20	

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28623

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 35** SampType: **Method Blank** Lab ID: **MB-28623** Method: **SW6020**

Analysis Date: **04/13/15 16:23** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.2	0.05									
Cadmium	ND	0.2									
Chromium	0.08	0.04									
Lead	ND	0.10									
Molybdenum	ND	0.09									
Selenium	0.2	0.2									
Silver	0.07	0.05									
Uranium	ND	0.06									
Vanadium	5										

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICPMS204-B_150413C: 37** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28623** Method: **SW6020**

Analysis Date: **04/13/15 16:28** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	55.5	1.0	50	0	**111**	80	120				
Arsenic	50.4	1.0	50	0.2148	**100**	80	120				
Cadmium	27.0	1.0	25	0	**108**	80	120				
Chromium	49.2	1.0	50	0.0775	**98**	80	120				
Lead	51.9	1.0	50	0	**104**	80	120				
Molybdenum	51.4	1.0	50	0	**103**	80	120				
Selenium	50.5	1.0	50	0.206	**101**	80	120				
Silver	25.4	1.0	25	0.06955	**102**	80	120				
Uranium	54.4	1.0	50	0	**109**	80	120				
Vanadium	51.5	1.0	50	4.742	**94**	80	120				

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICPMS204-B_150413C: 43** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030393-014APDS** Method: **SW6020**

Analysis Date: **04/13/15 16:43** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	666	1.0	635.6	0.1314	**105**	75	125				
Arsenic	644	1.0	635.6	26.71	**97**	75	125				
Cadmium	307	1.0	317.8	0	**97**	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28623

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 43** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030393-014APDS** Method: **SW6020**

Analysis Date: **04/13/15 16:43** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	618	1.0	635.6	13.98	95	75	125				
Lead	631	1.0	635.6	4.743	99	75	125				
Molybdenum	627	1.0	635.6	0.1396	99	75	125				
Selenium	602	1.0	635.6	0.7563	95	75	125				
Silver	179	1.0	317.8	0.0715	56	75	125				S
Uranium	672	1.0	635.6	1.093	106	75	125				
Vanadium	667	1.0	635.6	58.34	96	75	125				

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICPMS204-B_150413C: 44** SampType: **Sample Matrix Spike** Lab ID: **H15030393-014AMS** Method: **SW6020**

Analysis Date: **04/13/15 16:45** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	49.2	1.0	63.56	0.1314	77	75	125				
Arsenic	75.2	1.0	63.56	26.71	76	75	125				
Cadmium	33.2	1.0	31.78	0	104	75	125				
Chromium	80.1	1.0	63.56	13.98	104	75	125				
Lead	72.0	1.0	63.56	4.743	106	75	125				
Molybdenum	65.8	1.0	63.56	0.1396	103	75	125				
Selenium	64.7	1.0	63.56	0.7563	101	75	125				
Silver	32.9	1.0	31.78	0.0715	103	75	125				
Uranium	71.2	1.0	63.56	1.093	110	75	125				
Vanadium	90.7	1.0	63.56	58.34	51	75	125				S

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICPMS204-B_150413C: 45** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-014AMSD** Method: **SW6020**

Analysis Date: **04/13/15 16:48** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	48.1	1.0	63.56	0.1314	75	75	125	49.16	2.2	20	
Arsenic	69.8	1.0	63.56	26.71	68	75	125	75.19	7.5	20	S
Cadmium	31.7	1.0	31.78	0	100	75	125	33.19	4.5	20	
Chromium	73.6	1.0	63.56	13.98	94	75	125	80.15	8.5	20	
Lead	69.0	1.0	63.56	4.743	101	75	125	72.01	4.2	20	
Molybdenum	63.4	1.0	63.56	0.1396	100	75	125	65.85	3.8	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28623

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 45** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-014AMSD** Method: **SW6020**

Analysis Date: **04/13/15 16:48** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	61.7	1.0	63.56	0.7563	96	75	125	64.7	4.7	20	
Silver	31.6	1.0	31.78	0.0715	99	75	125	32.94	4.1	20	
Uranium	69.2	1.0	63.56	1.093	107	75	125	71.25	2.9	20	
Vanadium	85.5	1.0	63.56	58.34	43	75	125	90.7	5.9	20	S

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICPMS204-B_150414B: 35** SampType: **Method Blank** Lab ID: **MB-28623** Method: **SW6020**

Analysis Date: **04/14/15 11:52** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.4									
Arsenic	ND	0.2									
Cadmium	ND	0.8									
Chromium	ND	0.2									
Lead	ND	0.5									
Molybdenum	ND	0.5									
Selenium	2	0.8									
Silver	ND	0.3									
Uranium	ND	0.3									
Vanadium	5	2									

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICPMS204-B_150414B: 36** SampType: **Laboratory Control Sample** Lab ID: **LCS-28623** Method: **SW6020**

Analysis Date: **04/14/15 11:55** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	47.4	1.0	126	0	38	2.2	92.9				
Arsenic	326	1.0	343	0	95	72.3	106.4				
Cadmium	135	1.0	137	0	98	73	105.1				
Chromium	78.1	1.0	76	0	103	72.8	109.1				
Lead	200	1.0	187	0	107	75.9	108.6				
Molybdenum	160	1.0	172	0	93	68.6	105.8				
Selenium	206	1.0	196	1.671	104	72.5	112.2				
Silver	67.8	1.0	69	0	98	67.8	112.8				
Uranium	118	1.0	100	0	118	80	120				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28623

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150414B: 36** SampType: **Laboratory Control Sample** Lab ID: **LCS-28623** Method: **SW6020**

Analysis Date: **04/14/15 11:55** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vanadium	73.6	2.1	73	5.215	94	66.6	107.3				

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28624

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 41** SampType: **Method Blank** Lab ID: **MB-28624** Method: **SW6010B**

Analysis Date: **04/13/15 13:46** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.7	0.3									
Barium	0.03	0.02									
Beryllium	ND	0.009									
Boron	0.3	0.1									
Cobalt	ND	0.1									
Copper	ND	0.2									
Iron	10	0.6									
Manganese	0.08	0.02									
Nickel	ND	0.07									
Zinc	7	0.09									

Associated samples: **H15030393-007A, H15030393-010A, H15030393-013A**

Run ID :Run Order: **ICP2-HE_150413B: 42** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28624** Method: **SW6010B**

Analysis Date: **04/13/15 13:50** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	250	5.0	250	0.6685	100	80	120				
Barium	49.1	1.0	50	0.031	98	80	120				
Beryllium	24.8	1.0	25	0	99	80	120				
Boron	47.2	1.0	50	0.2615	94	80	120				
Cobalt	46.4	1.0	50	0	93	80	120				
Copper	47.8	1.0	50	0	96	80	120				
Iron	245	5.0	250	14.83	92	80	120				
Manganese	235	1.0	250	0.0835	94	80	120				
Nickel	45.3	1.0	50	0	91	80	120				
Zinc	52.0	1.0	50	7.379	89	80	120				

Associated samples: **H15030393-007A, H15030393-010A, H15030393-013A**

Run ID :Run Order: **ICP2-HE_150413B: 45** SampType: **Laboratory Control Sample** Lab ID: **LCS-28624** Method: **SW6010B**

Analysis Date: **04/13/15 14:01** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	13300	5.0	14700	0.6685	90	50.7	131.3				
Barium	555	1.0	614	0.031	90	80.6	112.2				
Beryllium	45.3	1.0	51	0	89	76.3	108.6				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28624

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 45** SampType: **Laboratory Control Sample** Lab ID: **LCS-28624** Method: **SW6010B**

Analysis Date: **04/13/15 14:01** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	71.5	1.0	93.2	0.2615	76	59.4	101.9				
Cobalt	44.5	1.0	57.4	0	77	73.3	103.7				
Copper	245	1.1	280	0	88	77.5	109.6				
Iron	18800	5.0	23000	14.83	82	39.6	138.3				
Manganese	348	1.0	369	0.0835	94	80.8	115.7				
Nickel	48.4	1.0	61	0	79	72.3	103.4				
Zinc	186	1.0	213	7.379	84	74.2	109.9				

Associated samples: **H15030393-007A, H15030393-010A, H15030393-013A**

Run ID :Run Order: **ICP2-HE_150413B: 50** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030393-013APDS** Method: **SW6010B**

Analysis Date: **04/13/15 14:19** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	12600	5.0	1775	10620		75	125				A
Barium	517	1.0	355	181.1	95	75	125				
Beryllium	166	1.0	177.5	0.4488	93	75	125				
Boron	329	1.0	355	3.992	92	75	125				
Cobalt	318	1.0	355	2.724	89	75	125				
Copper	353	1.6	355	24	93	75	125				
Iron	16300	5.0	1775	14490		75	125				A
Manganese	1790	1.0	1775	206.5	89	75	125				
Nickel	318	1.0	355	9.005	87	75	125				
Zinc	374	1.0	355	43.07	93	75	125				

Associated samples: **H15030393-007A, H15030393-010A, H15030393-013A**

Run ID :Run Order: **ICP2-HE_150413B: 51** SampType: **Sample Matrix Spike** Lab ID: **H15030393-013AMS** Method: **SW6010B**

Analysis Date: **04/13/15 14:23** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	12200	5.0	348.1	10620		75	125				A
Barium	254	1.0	69.62	181.1	104	75	125				
Beryllium	35.3	1.0	34.81	0.4488	100	75	125				
Boron	67.4	1.0	69.62	3.992	91	75	125				
Cobalt	67.4	1.0	69.62	2.724	93	75	125				
Copper	88.2	1.5	69.62	24	92	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28624

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 51** SampType: **Sample Matrix Spike** Lab ID: **H15030393-013AMS** Method: **SW6010B**

Analysis Date: **04/13/15 14:23** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	14600	5.0	348.1	14490		75	125				A
Manganese	537	1.0	348.1	206.5	95	75	125				
Nickel	71.9	1.0	69.62	9.005	90	75	125				
Zinc	105	1.0	69.62	43.07	89	75	125				

Associated samples: **H15030393-007A, H15030393-010A, H15030393-013A**

Run ID :Run Order: **ICP2-HE_150413B: 52** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-013AMSD** Method: **SW6010B**

Analysis Date: **04/13/15 14:27** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	12500	5.0	344.7	10620		75	125	12240	2.4	20	A
Barium	246	1.0	68.94	181.1	95	75	125	253.7	2.9	20	
Beryllium	34.9	1.0	34.47	0.4488	100	75	125	35.29	1.0	20	
Boron	67.9	1.0	68.94	3.992	93	75	125	67.37	0.8	20	
Cobalt	67.9	1.0	68.94	2.724	95	75	125	67.35	0.9	20	
Copper	91.1	1.5	68.94	24	97	75	125	88.2	3.3	20	
Iron	14700	5.0	344.7	14490		75	125	14570	1.0	20	A
Manganese	534	1.0	344.7	206.5	95	75	125	537.1	0.6	20	
Nickel	73.2	1.0	68.94	9.005	93	75	125	71.93	1.8	20	
Zinc	110	1.0	68.94	43.07	97	75	125	105.2	4.6	20	

Associated samples: **H15030393-007A, H15030393-010A, H15030393-013A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28624

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 69** SampType: **Method Blank** Lab ID: **MB-28624** Method: **SW6020**

Analysis Date: **04/13/15 21:40** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.2	0.05									
Cadmium	ND	0.2									
Chromium	0.07	0.04									
Lead	ND	0.10									
Molybdenum	ND	0.09									
Selenium	ND	0.2									
Silver	ND	0.05									
Uranium	ND	0.06									
Vanadium	3										
Zinc	9	0.7									

Associated samples: **H15030393-007A, H15030393-010A, H15030393-013A**

Run ID :Run Order: **ICPMS204-B_150413C: 70** SampType: **Laboratory Control Sample** Lab ID: **LCS-28624** Method: **SW6020**

Analysis Date: **04/13/15 21:43** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	48.9	1.0	126	0	**39**	2.2	92.9				
Arsenic	322	1.0	343	0.1961	**94**	72.3	106.4				
Cadmium	124	1.0	137	0	**91**	73	105.1				
Chromium	79.0	1.0	76	0.06895	**104**	72.8	109.1				
Lead	202	1.0	187	0	**108**	75.9	108.6				
Molybdenum	165	1.0	172	0	**96**	68.6	105.8				
Selenium	195	1.0	196	0	**100**	72.5	112.2				
Silver	68.1	1.0	69	0	**99**	67.8	112.8				
Vanadium	72.6	1.0	73	3.157	**95**	66.6	107.3				
Zinc	218	1.0	213	8.81	**98**	74.2	109.9				

Associated samples: **H15030393-007A, H15030393-010A, H15030393-013A**

Run ID :Run Order: **ICPMS204-B_150413C: 71** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28624** Method: **SW6020**

Analysis Date: **04/13/15 21:45** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	54.2	1.0	50	0	**108**	80	120				
Arsenic	52.6	1.0	50	0.1961	**105**	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28624

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 71** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28624** Method: **SW6020**

Analysis Date: **04/13/15 21:45** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	26.6	1.0	25	0	106	80	120				
Chromium	52.0	1.0	50	0.06895	104	80	120				
Lead	52.4	1.0	50	0	105	80	120				
Molybdenum	52.3	1.0	50	0	105	80	120				
Selenium	52.3	1.0	50	0	105	80	120				
Silver	25.1	1.0	25	0	100	80	120				
Uranium	53.8	1.0	50	0	108	80	120				
Vanadium	54.0	1.0	50	3.157	102	80	120				
Zinc	56.4	1.0	50	8.81	95	80	120				

Associated samples: **H15030393-007A, H15030393-010A, H15030393-013A**

Run ID :Run Order: **ICPMS204-B_150413C: 79** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030393-013APDS** Method: **SW6020**

Analysis Date: **04/13/15 22:06** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	719	1.0	689.4	0.1888	104	75	125				
Arsenic	731	1.0	689.4	30.5	102	75	125				
Cadmium	329	1.0	344.7	0.2502	95	75	125				
Chromium	709	1.0	689.4	17.23	100	75	125				
Lead	694	1.0	689.4	12.52	99	75	125				
Molybdenum	712	1.0	689.4	0.3804	103	75	125				
Selenium	686	1.0	689.4	0.7266	99	75	125				
Silver	130	1.0	344.7	0.1404	38	75	125				S
Uranium	716	1.0	689.4	1.233	104	75	125				
Vanadium	731	1.0	689.4	39.77	100	75	125				
Zinc	708	1.0	689.4	58.93	94	75	125				

Associated samples: **H15030393-007A, H15030393-010A, H15030393-013A**

Run ID :Run Order: **ICPMS204-B_150413C: 80** SampType: **Sample Matrix Spike** Lab ID: **H15030393-013AMS** Method: **SW6020**

Analysis Date: **04/13/15 22:08** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	40.8	1.0	69.62	0.1888	58	75	125				S
Arsenic	95.2	1.0	69.62	30.5	93	75	125				
Cadmium	34.8	1.0	34.81	0.2502	99	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28624

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 80** SampType: **Sample Matrix Spike** Lab ID: **H15030393-013AMS** Method: **SW6020**

Analysis Date: **04/13/15 22:08** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	89.7	1.0	69.62	17.23	104	75	125				
Lead	82.6	1.0	69.62	12.52	101	75	125				
Molybdenum	73.5	1.0	69.62	0.3804	105	75	125				
Selenium	72.9	1.0	69.62	0.7266	104	75	125				
Silver	34.8	1.0	34.81	0.1404	100	75	125				
Uranium	76.0	1.0	69.62	1.233	107	75	125				
Vanadium	111	1.0	69.62	39.77	103	75	125				
Zinc	113	1.0	69.62	58.93	78	75	125				

Associated samples: **H15030393-007A, H15030393-010A, H15030393-013A**

Run ID :Run Order: **ICPMS204-B_150413C: 81** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-013AMSD** Method: **SW6020**

Analysis Date: **04/13/15 22:10** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	39.2	1.0	68.94	0.1888	57	75	125	40.79	3.9	20	S
Arsenic	98.9	1.0	68.94	30.5	99	75	125	95.17	3.8	20	
Cadmium	35.7	1.0	34.47	0.2502	103	75	125	34.81	2.4	20	
Chromium	92.6	1.0	68.94	17.23	109	75	125	89.74	3.2	20	
Lead	86.8	1.0	68.94	12.52	108	75	125	82.57	5.0	20	
Molybdenum	74.9	1.0	68.94	0.3804	108	75	125	73.52	1.8	20	
Selenium	74.4	1.0	68.94	0.7266	107	75	125	72.89	2.0	20	
Silver	35.7	1.0	34.47	0.1404	103	75	125	34.81	2.6	20	
Uranium	77.8	1.0	68.94	1.233	111	75	125	75.95	2.3	20	
Vanadium	116	1.0	68.94	39.77	110	75	125	111.5	3.7	20	
Zinc	119	1.0	68.94	58.93	88	75	125	113.5	5.0	20	

Associated samples: **H15030393-007A, H15030393-010A, H15030393-013A**

Run ID :Run Order: **ICPMS204-B_150414B: 46** SampType: **Method Blank** Lab ID: **MB-28624** Method: **SW6020**

Analysis Date: **04/14/15 12:20** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.4									
Arsenic	ND	0.2									
Cadmium	ND	0.8									
Chromium	ND	0.2									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28624

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150414B: 46** SampType: **Method Blank** Lab ID: **MB-28624** Method: **SW6020**

Analysis Date: **04/14/15 12:20** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.5									
Molybdenum	ND	0.5									
Selenium	0.8	0.8									
Silver	ND	0.3									
Uranium	ND	0.3									
Vanadium	5	2									
Zinc	10	4									

Associated samples: **H15030393-007A, H15030393-010A, H15030393-013A**

Run ID :Run Order: **ICPMS204-B_150414B: 47** SampType: **Laboratory Control Sample** Lab ID: **LCS-28624** Method: **SW6020**

Analysis Date: **04/14/15 12:23** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Uranium	120	1.0	100	0	120	80	120				

Associated samples: **H15030393-007A, H15030393-010A, H15030393-013A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28625

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 58** SampType: **Method Blank** Lab ID: **MB-28625** Method: **SW6010B**

Analysis Date: **04/13/15 14:49** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.7									
Barium	0.04	0.02									
Beryllium	ND	0.009									
Boron	0.3	0.1									
Cobalt	ND	0.1									
Copper	ND	0.2									
Iron	8	0.6									
Manganese	0.05	0.02									
Nickel	0.08	0.07									
Zinc	3	0.09									

Associated samples: **H15030393-006A, H15030393-009A, H15030393-012A**

Run ID :Run Order: **ICP2-HE_150413B: 59** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28625** Method: **SW6010B**

Analysis Date: **04/13/15 14:53** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	248	5.0	250	0	99	80	120				
Barium	49.5	1.0	50	0.0415	99	80	120				
Beryllium	24.9	1.0	25	0	100	80	120				
Boron	46.7	1.0	50	0.266	93	80	120				
Cobalt	45.5	1.0	50	0	91	80	120				
Copper	48.0	1.0	50	0	96	80	120				
Iron	238	5.0	250	8.139	92	80	120				
Manganese	234	1.0	250	0.0455	93	80	120				
Nickel	44.5	1.0	50	0.08	89	80	120				
Zinc	51.8	1.0	50	2.821	98	80	120				

Associated samples: **H15030393-006A, H15030393-009A, H15030393-012A**

Run ID :Run Order: **ICP2-HE_150413B: 60** SampType: **Laboratory Control Sample** Lab ID: **LCS-28625** Method: **SW6010B**

Analysis Date: **04/13/15 14:56** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	11600	5.0	15310	0	76	50.7	131.3				
Barium	540	1.0	639.6	0.0415	84	80.6	112.2				
Beryllium	44.1	1.0	53.13	0	83	76.3	108.6				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28625

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 60** SampType: **Laboratory Control Sample** Lab ID: **LCS-28625** Method: **SW6010B**

Analysis Date: **04/13/15 14:56** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	69.9	1.0	97.08	0.266	72	59.4	101.9				
Cobalt	46.5	1.0	59.79	0	78	73.3	103.7				
Copper	240	1.1	291.7	0	82	77.5	109.6				
Iron	18000	5.0	23960	8.139	75	39.6	138.3				
Manganese	354	1.0	384.4	0.0455	92	80.8	115.7				
Nickel	48.1	1.0	63.54	0.08	76	72.3	103.4				
Zinc	186	1.0	221.9	2.821	82	74.2	109.9				

Associated samples: **H15030393-006A, H15030393-009A, H15030393-012A**

Run ID :Run Order: **ICP2-HE_150413B: 65** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030393-012APDS** Method: **SW6010B**

Analysis Date: **04/13/15 15:15** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	29900	9.1	3415	26340		75	125				A
Barium	909	1.0	683	281.6	92	75	125				
Beryllium	314	1.0	341.5	1.507	91	75	125				
Boron	604	1.4	683	11.61	87	75	125				
Cobalt	582	1.5	683	3.529	85	75	125				
Copper	706	3.0	683	84.48	91	75	125				
Iron	25700	8.0	3415	22730		75	125				A
Manganese	3640	1.0	3415	704	86	75	125				
Nickel	594	1.0	683	36.01	82	75	125				
Zinc	724	1.3	683	112.2	90	75	125				

Associated samples: **H15030393-006A, H15030393-009A, H15030393-012A**

Run ID :Run Order: **ICP2-HE_150413B: 66** SampType: **Sample Matrix Spike** Lab ID: **H15030393-012AMS** Method: **SW6010B**

Analysis Date: **04/13/15 15:19** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	32300	8.8	663.1	26340		75	125				A
Barium	437	1.0	132.6	281.6	117	75	125				
Beryllium	66.3	1.0	66.31	1.507	98	75	125				
Boron	133	1.4	132.6	11.61	91	75	125				
Cobalt	124	1.5	132.6	3.529	91	75	125				
Copper	217	2.9	132.6	84.48	100	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28625

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 66** SampType: **Sample Matrix Spike** Lab ID: **H15030393-012AMS** Method: **SW6010B**

Analysis Date: **04/13/15 15:19** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	24000	7.8	663.1	22730		75	125				A
Manganese	1350	1.0	663.1	704	97	75	125				
Nickel	148	1.0	132.6	36.01	84	75	125				
Zinc	238	1.2	132.6	112.2	95	75	125				

Associated samples: **H15030393-006A, H15030393-009A, H15030393-012A**

Run ID :Run Order: **ICP2-HE_150413B: 69** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-012AMSD** Method: **SW6010B**

Analysis Date: **04/13/15 15:30** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	32800	8.7	656.2	26340		75	125	32330	1.6	20	A
Barium	443	1.0	131.2	281.6	123	75	125	436.7	1.3	20	
Beryllium	65.3	1.0	65.62	1.507	97	75	125	66.31	1.6	20	
Boron	130	1.4	131.2	11.61	90	75	125	132.9	2.4	20	
Cobalt	120	1.5	131.2	3.529	89	75	125	123.9	3.4	20	
Copper	210	2.9	131.2	84.48	95	75	125	217.3	3.5	20	
Iron	24000	7.7	656.2	22730		75	125	23980	0.2	20	A
Manganese	1320	1.0	656.2	704	93	75	125	1346	2.3	20	
Nickel	146	1.0	131.2	36.01	84	75	125	148.1	1.2	20	
Zinc	239	1.2	131.2	112.2	97	75	125	238.4	0.3	20	

Associated samples: **H15030393-006A, H15030393-009A, H15030393-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28625

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150414B: 57** SampType: **Method Blank** Lab ID: **MB-28625** Method: **SW6020**

Analysis Date: **04/14/15 12:48** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.4									
Arsenic	0.2	0.2									
Cadmium	ND	0.8									
Chromium	ND	0.2									
Lead	ND	0.5									
Molybdenum	ND	0.5									
Selenium	1	0.8									
Silver	ND	0.3									
Uranium	ND	0.3									
Vanadium	4	2									

Associated samples: **H15030393-006A, H15030393-009A, H15030393-012A**

Run ID :Run Order: **ICPMS204-B_150414B: 58** SampType: **Laboratory Control Sample** Lab ID: **LCS-28625** Method: **SW6020**

Analysis Date: **04/14/15 12:51** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	46.6	1.0	126	0	**37**	2.2	92.9				
Arsenic	314	1.0	343	0.2478	**91**	72.3	106.4				
Cadmium	131	1.0	137	0	**96**	73	105.1				
Chromium	74.7	1.0	76	0	**98**	72.8	109.1				
Lead	190	1.0	187	0	**101**	75.9	108.6				
Molybdenum	153	1.0	172	0	**89**	68.6	105.8				
Selenium	199	1.0	196	1.315	**101**	72.5	112.2				
Silver	65.8	1.0	69	0	**95**	67.8	112.8				
Uranium	112	1.0	100	0	**112**	80	120				
Vanadium	71.1	2.2	73	4.415	**91**	66.6	107.3				

Associated samples: **H15030393-006A, H15030393-009A, H15030393-012A**

Run ID :Run Order: **ICPMS204-B_150414B: 59** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28625** Method: **SW6020**

Analysis Date: **04/14/15 12:53** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	51.0	1.0	50	0	**102**	80	120				
Arsenic	51.3	1.0	50	0.2478	**102**	80	120				
Cadmium	25.7	1.0	25	0	**103**	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28625

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150414B: 59** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28625** Method: **SW6020**

Analysis Date: **04/14/15 12:53** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	50.2	1.0	50	0	100	80	120				
Lead	50.2	1.0	50	0	100	80	120				
Molybdenum	50.2	1.0	50	0	100	80	120				
Selenium	54.5	1.0	50	1.315	106	80	120				
Silver	24.8	1.0	25	0	99	80	120				
Uranium	49.0	1.0	50	0	98	80	120				
Vanadium	53.6	2.1	50	4.415	98	80	120				

Associated samples: **H15030393-006A, H15030393-009A, H15030393-012A**

Run ID :Run Order: **ICPMS204-B_150414B: 65** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030393-012APDS** Method: **SW6020**

Analysis Date: **04/14/15 13:09** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	6790	1.0	6631	0	102	75	125				
Arsenic	6860	1.0	6631	55.11	103	75	125				
Cadmium	3270	2.0	3316	0	99	75	125				
Chromium	6670	1.0	6631	71.82	100	75	125				
Lead	6630	1.3	6631	134.1	98	75	125				
Molybdenum	6680	1.2	6631	3.524	101	75	125				
Selenium	6700	2.1	6631	5.582	101	75	125				
Silver	2900	1.0	3316	0	88	75	125				
Uranium	6690	1.0	6631	4.706	101	75	125				
Vanadium	6710	5.6	6631	70.89	100	75	125				

Associated samples: **H15030393-006A, H15030393-009A, H15030393-012A**

Run ID :Run Order: **ICPMS204-B_150414B: 66** SampType: **Sample Matrix Spike** Lab ID: **H15030393-012AMS** Method: **SW6020**

Analysis Date: **04/14/15 13:11** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	67.4	1.0	132.6	0	51	75	125				S
Arsenic	190	1.0	132.6	55.11	101	75	125				
Cadmium	73.5	2.0	66.31	0	111	75	125				
Chromium	202	1.0	132.6	71.82	98	75	125				
Lead	250	1.3	132.6	134.1	87	75	125				
Molybdenum	144	1.2	132.6	3.524	106	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28625

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150414B: 66** SampType: **Sample Matrix Spike** Lab ID: **H15030393-012AMS** Method: **SW6020**

Analysis Date: **04/14/15 13:11** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	151	2.1	132.6	5.582	110	75	125				
Silver	88.3	1.0	66.31	0	133	75	125				S
Uranium	143	1.0	132.6	4.706	104	75	125				
Vanadium	204	5.6	132.6	70.89	100	75	125				

Associated samples: **H15030393-006A, H15030393-009A, H15030393-012A**

Run ID :Run Order: **ICPMS204-B_150414B: 67** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-012AMSD** Method: **SW6020**

Analysis Date: **04/14/15 13:14** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	50.3	1.0	131.2	0	38	75	125	67.44	29	20	SR
Arsenic	182	1.0	131.2	55.11	97	75	125	189.7	4.2	20	
Cadmium	68.5	2.0	65.62	0	104	75	125	73.47	7.0	20	
Chromium	197	1.0	131.2	71.82	96	75	125	201.9	2.2	20	
Lead	246	1.3	131.2	134.1	86	75	125	249.7	1.3	20	
Molybdenum	130	1.2	131.2	3.524	97	75	125	144.1	10	20	
Selenium	141	2.0	131.2	5.582	103	75	125	150.9	6.9	20	
Silver	73.2	1.0	65.62	0	112	75	125	88.26	19	20	
Uranium	130	1.0	131.2	4.706	95	75	125	143	9.9	20	
Vanadium	201	5.5	131.2	70.89	99	75	125	203.8	1.5	20	

Associated samples: **H15030393-006A, H15030393-009A, H15030393-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28637

Date: *24-Apr-15*

Run ID :Run Order: **HGCV202-H_150413A: 26** SampType: **Method Blank** Lab ID: **MB-28637** Method: **E245.1**
Analysis Date: **04/13/15 14:12** Units: **mg/L** **Prep Info:** Prep Date: **4/10/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	1E-06									

Associated samples: **H15030393-003C, H15030393-003D**

Run ID :Run Order: **HGCV202-H_150413A: 27** SampType: **Laboratory Control Sample** Lab ID: **LCS-28637** Method: **E245.1**
Analysis Date: **04/13/15 14:17** Units: **mg/L** **Prep Info:** Prep Date: **4/10/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00015	0.00010	0.00015	0	**99**	90	110				

Associated samples: **H15030393-003C, H15030393-003D**

Run ID :Run Order: **HGCV202-H_150413A: 29** SampType: **Sample Matrix Spike** Lab ID: **H15030382-024BMS** Method: **E245.1**
Analysis Date: **04/13/15 14:25** Units: **mg/L** **Prep Info:** Prep Date: **4/10/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00013	0.00010	0.00015	0	**87**	70	130				

Associated samples: **H15030393-003C, H15030393-003D**

Run ID :Run Order: **HGCV202-H_150413A: 30** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030382-024BMSD** Method: **E245.1**
Analysis Date: **04/13/15 14:29** Units: **mg/L** **Prep Info:** Prep Date: **4/10/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00013	0.00010	0.00015	0	**88**	70	130	0.0001298	**1.1**	20	

Associated samples: **H15030393-003C, H15030393-003D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28681

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150420B: 19** SampType: **Method Blank** Lab ID: **MB-28681** Method: **SW6010B**
Analysis Date: **04/20/15 12:19** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	ND	0.02									
Zinc	0.3	0.09									

Associated samples: **H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150420B: 20** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28681** Method: **SW6010B**
Analysis Date: **04/20/15 12:23** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	48.5	1.0	49.5	0	98	80	120				
Zinc	47.3	1.0	49.5	0.2627	95	80	120				

Associated samples: **H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150420B: 21** SampType: **Laboratory Control Sample** Lab ID: **LCS-28681** Method: **SW6010B**
Analysis Date: **04/20/15 12:26** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	524	1.0	584.8	0	90	80.6	112.2				
Zinc	184	1.0	202.9	0.2627	91	74.2	109.9				

Associated samples: **H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150420B: 53** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030394-064APDS** Method: **SW6010B**
Analysis Date: **04/20/15 14:25** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	363	1.0	291.5	91.57	93	75	125				
Zinc	732	1.0	291.5	458.1	94	75	125				

Associated samples: **H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150420B: 54** SampType: **Sample Matrix Spike** Lab ID: **H15030394-064AMS** Method: **SW6010B**
Analysis Date: **04/20/15 14:29** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	123	1.0	56.6	91.57	55	75	125				S
Zinc	308	1.0	56.6	458.1		75	125				A

Associated samples: **H15030393-011A, H15030393-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28681

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150420B: 55** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-064AMSD** Method: **SW6010B**

Analysis Date: **04/20/15 14:33** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	162	1.0	57.14	91.57	**122**	75	125	122.9	**27**	20	R
Zinc	498	1.0	57.14	458.1		75	125	308.4	**47**	20	AR

Associated samples: **H15030393-011A, H15030393-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28717

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150422C: 32** SampType: **Method Blank** Lab ID: **MB-28717** Method: **SW6010B**
Analysis Date: **04/22/15 15:43** Units: **mg/kg** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.1									
Copper	ND	0.2									
Lead	ND	0.7									
Vanadium	ND	0.2									
Zinc	0.2	0.1									

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150422C: 33** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28717** Method: **SW6010B**
Analysis Date: **04/22/15 15:46** Units: **mg/kg** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	51.3	1.0	51.55	0	100	80	120				
Copper	52.6	1.0	51.55	0	102	80	120				
Lead	51.7	1.0	51.55	0	100	80	120				
Vanadium	52.6	1.0	51.55	0	102	80	120				
Zinc	52.3	1.0	51.55	0.1643	101	80	120				

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150422C: 34** SampType: **Laboratory Control Sample** Lab ID: **LCS-28717** Method: **SW6010B**
Analysis Date: **04/22/15 15:50** Units: **mg/kg** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	71.2	1.0	93.2	0	76	59.4	101.9				
Copper	245	1.1	280	0	87	77.5	109.6				
Lead	173	3.2	187	0	92	75.9	108.6				
Vanadium	60.8	1.0	73	0	83	66.6	107.3				
Zinc	185	1.0	213	0.1643	87	74.2	109.9				

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150422C: 44** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030394-025APDS** Method: **SW6010B**
Analysis Date: **04/22/15 16:27** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/21/2015** Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	313	1.0	332.9	3.789	93	75	125				
Copper	410	1.5	332.9	98.43	94	75	125				
Lead	338	4.2	332.9	38.43	90	75	125				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28717

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150422C: 44** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030394-025APDS** Method: **SW6010B**

Analysis Date: **04/22/15 16:27** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/21/2015** Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vanadium	322	1.0	332.9	13.23	93	75	125				
Zinc	554	1.0	332.9	251.5	91	75	125				

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150422C: 45** SampType: **Sample Matrix Spike** Lab ID: **H15030394-025AMS** Method: **SW6010B**

Analysis Date: **04/22/15 16:31** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	69.2	1.0	64.63	3.789	101	75	125				
Copper	138	1.4	64.63	98.43	62	75	125				S
Lead	137	4.1	64.63	38.43	152	75	125				S
Vanadium	82.5	1.0	64.63	13.23	107	75	125				
Zinc	279	1.0	64.63	251.5	42	75	125				S

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150422C: 46** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-025AMSD** Method: **SW6010B**

Analysis Date: **04/22/15 16:35** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	67.8	1.0	64.63	3.789	99	75	125	69.15	1.9	20	
Copper	293	1.4	64.63	98.43	301	75	125	138.4	72	20	SR
Lead	143	4.1	64.63	38.43	161	75	125	136.9	4.1	20	S
Vanadium	80.4	1.0	64.63	13.23	104	75	125	82.46	2.5	20	
Zinc	539	1.0	64.63	251.5	444	75	125	278.5	64	20	SR

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_R197799

Date: *24-Apr-15*

Run ID :Run Order: **SUB-C197799: 1** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV-44288** Method: **A5310 C**
Analysis Date: **04/02/15 01:04** Units: **mg/L** **Prep Info:** Prep Date: **4/1/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	9.79	0.50	10	0	98	90	110	0			

Associated samples: **H15030393-001F, H15030393-002F, H15030393-003F, H15030393-004F, H15030393-005F**

Run ID :Run Order: **SUB-C197799: 2** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-44288** Method: **A5310 C**
Analysis Date: **04/02/15 01:20** Units: **mg/L** **Prep Info:** Prep Date: **4/1/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	9.87	0.50	10	0	99	90	110	0			

Associated samples: **H15030393-001F, H15030393-002F, H15030393-003F, H15030393-004F, H15030393-005F**

Run ID :Run Order: **SUB-C197799: 8** SampType: **Sample Matrix Spike** Lab ID: **H15030394-005E** Method: **A5310 C**
Analysis Date: **04/02/15 05:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	9.05	0.50	5	4.133	98	85	115	0			

Associated samples: **H15030393-001F, H15030393-002F, H15030393-003F, H15030393-004F, H15030393-005F**

Run ID :Run Order: **SUB-C197799: 9** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-005E** Method: **A5310 C**
Analysis Date: **04/02/15 06:13** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	9.39	0.50	5	4.133	105	85	115	9.046	3.8	10	

Associated samples: **H15030393-001F, H15030393-002F, H15030393-003F, H15030393-004F, H15030393-005F**

Run ID :Run Order: **SUB-C197799: 27** SampType: **Sample Matrix Spike** Lab ID: **H15030394-015E** Method: **A5310 C**
Analysis Date: **04/02/15 10:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	9.56	0.50	5	4.583	100	85	115	0			

Associated samples: **H15030393-001F, H15030393-002F, H15030393-003F, H15030393-004F, H15030393-005F**

Run ID :Run Order: **SUB-C197799: 28** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-015E** Method: **A5310 C**
Analysis Date: **04/02/15 10:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	9.49	0.50	5	4.583	98	85	115	9.562	0.7	10	

Associated samples: **H15030393-001F, H15030393-002F, H15030393-003F, H15030393-004F, H15030393-005F**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_R197799

Date: *24-Apr-15*

Run ID :Run Order: **SUB-C197799: 30** SampType: **Method Blank** Lab ID: **MB-44288** Method: **A5310 C**

Analysis Date: **04/02/15 00:49** Units: **mg/L** **Prep Info:** Prep Date: **4/1/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	0.2	0.04									

Associated samples: **H15030393-001F, H15030393-002F, H15030393-003F, H15030393-004F, H15030393-005F**

Run ID :Run Order: **SUB-C197799: 31** SampType: **Laboratory Control Sample** Lab ID: **LCS-44288** Method: **A5310 C**

Analysis Date: **04/02/15 04:50** Units: **mg/L** **Prep Info:** Prep Date: **4/1/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	9.87	0.50	10	0.2234	96	90	110	0			

Associated samples: **H15030393-001F, H15030393-002F, H15030393-003F, H15030393-004F, H15030393-005F**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105121

Date: *24-Apr-15*

Run ID :Run Order: **PHSC_101-H_150331A: 2** SampType: **Initial Calibration Verification Standard** Lab ID: **SC 150** Method: **A2510 B**
Analysis Date: **03/31/15 09:21** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity @ 25 C	155	1.0	150	0	103	90	110				

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **PHSC_101-H_150331A: 3** SampType: **Initial Calibration Verification Standard** Lab ID: **SC 5000** Method: **A2510 B**
Analysis Date: **03/31/15 09:24** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity @ 25 C	5010	1.0	5000	0	100	90	110				

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **PHSC_101-H_150331A: 4** SampType: **Initial Calibration Verification Standard** Lab ID: **SC 20000** Method: **A2510 B**
Analysis Date: **03/31/15 09:26** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity @ 25 C	19700	1.0	20000	0	98	90	110				

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **PHSC_101-H_150331A: 5** SampType: **Laboratory Control Sample** Lab ID: **SC 2ND 1000** Method: **A2510 B**
Analysis Date: **03/31/15 09:29** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity @ 25 C	1000	1.0	1000	0	101	90	110				

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **PHSC_101-H_150331A: 10** SampType: **Sample Duplicate** Lab ID: **H15030393-001BDUP** Method: **A2510 B**
Analysis Date: **03/31/15 09:41** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity @ 25 C	245	1.0		0				244	0.4	10	

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **PHSC_101-H_150331A: 50** SampType: **Sample Duplicate** Lab ID: **H15030394-015ADUP** Method: **A2510 B**
Analysis Date: **03/31/15 10:30** Units: **umhos/cm** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Conductivity @ 25 C	416	1.0		0				417	0.2	10	

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105150

Date: *24-Apr-15*

Run ID :Run Order: **FIA203-HE_150331C: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E353.2**
Analysis Date: **03/31/15 13:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.999	0.010	1	0	100	90	110				

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA203-HE_150331C: 10** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E353.2**
Analysis Date: **03/31/15 13:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.00	0.011	1	0	100	90	110				

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA203-HE_150331C: 12** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E353.2**
Analysis Date: **03/31/15 13:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	-0.0124	0.010		0		0	0				

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA203-HE_150331C: 14** SampType: **Method Blank** Lab ID: **MBLK** Method: **E353.2**
Analysis Date: **03/31/15 13:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	ND	0.003									

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA203-HE_150331C: 17** SampType: **Sample Duplicate** Lab ID: **H15030288-002CDUP** Method: **E353.2**
Analysis Date: **03/31/15 13:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	11.6	0.20		0				11.83	1.9	20	

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA203-HE_150331C: 60** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**
Analysis Date: **03/31/15 14:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.531	0.010	0.5	0	106	90	110				

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105150

Date: *24-Apr-15*

Run ID :Run Order: **FIA203-HE_150331C: 74** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**

Analysis Date: **03/31/15 15:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.525	0.010	0.5	0	105	90	110				

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA203-HE_150331C: 76** SampType: **Sample Matrix Spike** Lab ID: **H15030393-002EMS** Method: **E353.2**

Analysis Date: **03/31/15 15:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.35	0.011	1	0.3889	96	90	110				

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA203-HE_150331C: 77** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-002EMSD** Method: **E353.2**

Analysis Date: **03/31/15 15:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.35	0.011	1	0.3889	96	90	110	1.351	0.4	20	

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105152

Date: *24-Apr-15*

Run ID :Run Order: **PHSC_101-H_150401A: 6** SampType: **Method Blank** Lab ID: **MB** Method: **A2320 B**
Analysis Date: **04/01/15 09:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	3	0.7									

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **PHSC_101-H_150401A: 8** SampType: **Laboratory Control Sample** Lab ID: **LCS** Method: **A2320 B**
Analysis Date: **04/01/15 09:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	590	4.0	600	2.68	**98**	90	110				

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **PHSC_101-H_150401A: 11** SampType: **Sample Duplicate** Lab ID: **H15030393-001BDUP** Method: **A2320 B**
Analysis Date: **04/01/15 09:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	78	4.0		0				79.8	**1.9**	10	
Bicarbonate as HCO3	95	4.0		0				96.75	**1.9**	10	

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **PHSC_101-H_150401A: 15** SampType: **Sample Matrix Spike** Lab ID: **H15030393-002BMS** Method: **A2320 B**
Analysis Date: **04/01/15 09:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	660	4.0	600	75.45	**97**	80	120				

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **PHSC_101-H_150401A: 52** SampType: **Sample Duplicate** Lab ID: **H15030394-015ADUP** Method: **A2320 B**
Analysis Date: **04/01/15 11:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	92	4.0		0				91.55	**0.2**	10	
Bicarbonate as HCO3	110	4.0		0				111.1	**0.2**	10	

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105153

Date: *24-Apr-15*

Run ID :Run Order: **IC102-H_150331A: 13** SampType: **Method Blank** Lab ID: **ICB** Method: **E300.0**
Analysis Date: **03/31/15 10:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.010									
Sulfate	ND	0.009									

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **IC102-H_150331A: 14** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E300.0**
Analysis Date: **03/31/15 10:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	106	1.0	100	0	106	90	110				
Sulfate	417	1.0	400	0	104	90	110				

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **IC102-H_150331A: 15** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E300.0**
Analysis Date: **03/31/15 10:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	49.5	1.0	50	0	99	90	110				
Sulfate	204	1.0	200	0	102	90	110				

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **IC102-H_150331A: 16** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV033115-1** Method: **E300.0**
Analysis Date: **03/31/15 10:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	104	1.0	100	0	104	90	110				
Sulfate	414	1.0	400	0	103	90	110				

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **IC102-H_150331A: 29** SampType: **Sample Matrix Spike** Lab ID: **H15030394-003AMS** Method: **E300.0**
Analysis Date: **03/31/15 13:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	80.0	1.0	50	26.31	107	90	110				
Sulfate	281	1.0	200	66.34	107	90	110				

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105153

Date: *24-Apr-15*

Run ID :Run Order: **IC102-H_150331A: 30** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-003AMSD** Method: **E300.0**

Analysis Date: **03/31/15 13:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	79.9	1.0	50	26.31	**107**	90	110	79.97	**0.1**	20	
Sulfate	284	1.0	200	66.34	**109**	90	110	281.3	**0.8**	20	

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105154

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150331B: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **03/31/15 09:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.787	0.10	0.8	0	98	95	105				
Calcium	39.3	1.0	40	0	98	95	105				
Magnesium	39.7	1.0	40	0	99	95	105				
Potassium	39.6	1.0	40	0	99	95	105				
Sodium	39.8	1.0	40	0	99	95	105				

Associated samples: **H15030393-001C, H15030393-002C, H15030393-003C, H15030393-004C, H15030393-005C**

Run ID :Run Order: **ICP2-HE_150331B: 7** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-1** Method: **E200.7**

Analysis Date: **03/31/15 09:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.49	0.10	2.5	0	100	95	105				
Calcium	25.0	1.0	25	0	100	95	105				
Magnesium	24.6	1.0	25	0	98	95	105				
Potassium	25.2	1.0	25	0	101	95	105				
Sodium	25.3	1.0	25	0	101	95	105				

Associated samples: **H15030393-001C, H15030393-002C, H15030393-003C, H15030393-004C, H15030393-005C**

Run ID :Run Order: **ICP2-HE_150331B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **03/31/15 09:59** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.000570	0.10		0		0	0				
Calcium	478	1.0	500	0	96	80	120				
Magnesium	519	1.0	500	0	104	80	120				
Potassium	-0.170	1.0		0		0	0				
Sodium	0.0336	1.0		0		0	0				

Associated samples: **H15030393-001C, H15030393-002C, H15030393-003C, H15030393-004C, H15030393-005C**

Run ID :Run Order: **ICP2-HE_150331B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **03/31/15 10:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.00	0.10	1	0	100	80	120				
Calcium	479	1.0	500	0	96	80	120				
Magnesium	520	1.0	500	0	104	80	120				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105154

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150331B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **03/31/15 10:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	20.3	1.0	20	0	102	80	120				
Sodium	20.5	1.0	20	0	102	80	120				

Associated samples: **H15030393-001C, H15030393-002C, H15030393-003C, H15030393-004C, H15030393-005C**

Run ID :Run Order: **ICP2-HE_150331B: 13** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.7**

Analysis Date: **03/31/15 10:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.003									
Calcium	0.04	0.03									
Magnesium	ND	0.02									
Potassium	ND	0.07									
Sodium	ND	0.02									

Associated samples: **H15030393-001C, H15030393-002C, H15030393-003C, H15030393-004C, H15030393-005C**

Run ID :Run Order: **ICP2-HE_150331B: 14** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.7**

Analysis Date: **03/31/15 10:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.981	0.10	1	0	98	85	115				
Calcium	49.9	1.0	50	0.03565	100	85	115				
Magnesium	50.4	1.0	50	0	101	85	115				
Potassium	50.2	1.0	50	0	100	85	115				
Sodium	50.4	1.0	50	0	101	85	115				

Associated samples: **H15030393-001C, H15030393-002C, H15030393-003C, H15030393-004C, H15030393-005C**

Run ID :Run Order: **ICP2-HE_150331B: 17** SampType: **Sample Matrix Spike** Lab ID: **H15030393-001CMS2** Method: **E200.7**

Analysis Date: **03/31/15 10:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.01	0.050	1	0.01147	100	70	130				
Calcium	77.3	1.0	50	26.98	101	70	130				
Magnesium	57.9	1.0	50	6.41	103	70	130				
Potassium	53.0	1.0	50	2.358	101	70	130				
Sodium	60.5	1.0	50	9.867	101	70	130				

Associated samples: **H15030393-001C, H15030393-002C, H15030393-003C, H15030393-004C, H15030393-005C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105154

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150331B: 18** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-001CMSD2** Method: **E200.7**

Analysis Date: **03/31/15 10:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.00	0.050	1	0.01147	**99**	70	130	1.007	**0.4**	20	
Calcium	77.1	1.0	50	26.98	**100**	70	130	77.29	**0.3**	20	
Magnesium	58.0	1.0	50	6.41	**103**	70	130	57.94	**0.1**	20	
Potassium	53.8	1.0	50	2.358	**103**	70	130	52.97	**1.5**	20	
Sodium	61.6	1.0	50	9.867	**103**	70	130	60.55	**1.7**	20	

Associated samples: **H15030393-001C, H15030393-002C, H15030393-003C, H15030393-004C, H15030393-005C**

Run ID :Run Order: **ICP2-HE_150331B: 19** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **03/31/15 10:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.53	0.10	2.5	0	**101**	90	110				
Calcium	25.4	1.0	25	0	**102**	90	110				
Magnesium	25.2	1.0	25	0	**101**	90	110				
Potassium	24.9	1.0	25	0	**100**	90	110				
Sodium	25.0	1.0	25	0	**100**	90	110				

Associated samples: **H15030393-001C, H15030393-002C, H15030393-003C, H15030393-004C, H15030393-005C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105158

Date: *24-Apr-15*

Run ID :Run Order: **FIA202-HE_150401A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E365.1**

Analysis Date: **04/01/15 07:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.251	0.010	0.25	0	**100**	90	110				

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA202-HE_150401A: 10** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **04/01/15 07:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.103	0.010	0.1	0	**103**	90	110				

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA202-HE_150401A: 11** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E365.1**

Analysis Date: **04/01/15 07:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.00105	0.010		0		0	0				

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105159

Date: *24-Apr-15*

Run ID :Run Order: **FIA203-HE_150401A: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**

Analysis Date: **04/01/15 07:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.525	0.10	0.5	0	**105**	90	110				

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **FIA203-HE_150401A: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**

Analysis Date: **04/01/15 07:55** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	-0.0123	0.10		0		0	0				

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Run ID :Run Order: **FIA203-HE_150401A: 52** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**

Analysis Date: **04/01/15 08:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	-0.00339	0.10		0		0	0				

Associated samples: **H15030393-001B, H15030393-002B, H15030393-003B, H15030393-004B, H15030393-005B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105171

Date: *24-Apr-15*

Run ID :Run Order: **FIA203-HE_150401B: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E350.1**
Analysis Date: **04/01/15 10:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	14.2	0.50	15.2	0	93	90	110				

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA203-HE_150401B: 8** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E350.1**
Analysis Date: **04/01/15 10:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.983	0.055	1	0	98	90	110				

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA203-HE_150401B: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**
Analysis Date: **04/01/15 10:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.534	0.050	0.5	0	107	90	110				

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA203-HE_150401B: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E350.1**
Analysis Date: **04/01/15 10:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	-0.0492	0.050		0		0	0				

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA203-HE_150401B: 19** SampType: **Sample Matrix Spike** Lab ID: **H15030393-003EMS** Method: **E350.1**
Analysis Date: **04/01/15 10:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.912	0.055	1	0	91	80	120				

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Run ID :Run Order: **FIA203-HE_150401B: 20** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-003EMSD** Method: **E350.1**
Analysis Date: **04/01/15 10:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.921	0.055	1	0	92	80	120	0.9122	0.9	10	

Associated samples: **H15030393-001E, H15030393-002E, H15030393-003E, H15030393-004E, H15030393-005E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105186

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150401B: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **04/01/15 10:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.767	0.10	0.8	0	96	95	105				
Calcium	39.7	1.0	40	0	99	95	105				
Magnesium	39.1	1.0	40	0	98	95	105				
Potassium	39.6	1.0	40	0	99	95	105				
Sodium	39.4	1.0	40	0	98	95	105				

Associated samples: **H15030393-001D, H15030393-002D, H15030393-003D, H15030393-004D, H15030393-005D**

Run ID :Run Order: **ICP2-HE_150401B: 7** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-1** Method: **E200.7**

Analysis Date: **04/01/15 10:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.43	0.10	2.5	0	97	95	105				
Calcium	25.1	1.0	25	0	100	95	105				
Magnesium	24.6	1.0	25	0	98	95	105				
Potassium	25.2	1.0	25	0	101	95	105				
Sodium	24.9	1.0	25	0	100	95	105				

Associated samples: **H15030393-001D, H15030393-002D, H15030393-003D, H15030393-004D, H15030393-005D**

Run ID :Run Order: **ICP2-HE_150401B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **04/01/15 10:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	8.00E-05	0.10		0		0	0				
Calcium	480	1.0	500	0	96	80	120				
Magnesium	512	1.0	500	0	102	80	120				
Potassium	-0.105	1.0		0		0	0				
Sodium	0.0158	1.0		0		0	0				

Associated samples: **H15030393-001D, H15030393-002D, H15030393-003D, H15030393-004D, H15030393-005D**

Run ID :Run Order: **ICP2-HE_150401B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **04/01/15 10:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.965	0.10	1	0	97	80	120				
Calcium	479	1.0	500	0	96	80	120				
Magnesium	513	1.0	500	0	103	80	120				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105186

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150401B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **04/01/15 10:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	20.4	1.0	20	0	102	80	120				
Sodium	20.2	1.0	20	0	101	80	120				

Associated samples: **H15030393-001D, H15030393-002D, H15030393-003D, H15030393-004D, H15030393-005D**

Run ID :Run Order: **ICP2-HE_150401B: 35** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **04/01/15 15:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.54	0.10	2.5	0	102	90	110				
Calcium	25.1	1.0	25	0	100	90	110				
Magnesium	24.8	1.0	25	0	99	90	110				
Potassium	24.8	1.0	25	0	99	90	110				
Sodium	24.9	1.0	25	0	99	90	110				

Associated samples: **H15030393-001D, H15030393-002D, H15030393-003D, H15030393-004D, H15030393-005D**

Run ID :Run Order: **ICP2-HE_150401B: 47** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **04/01/15 15:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.52	0.10	2.5	0	101	90	110				
Calcium	25.1	1.0	25	0	101	90	110				
Magnesium	24.9	1.0	25	0	100	90	110				
Potassium	24.8	1.0	25	0	99	90	110				
Sodium	24.9	1.0	25	0	99	90	110				

Associated samples: **H15030393-001D, H15030393-002D, H15030393-003D, H15030393-004D, H15030393-005D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105269

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150406A: 11** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **04/06/15 09:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.301	0.10	0.3	0	100	90	110				
Antimony	0.0624	0.050	0.06	0	104	90	110				
Arsenic	0.0614	0.0050	0.06	0	102	90	110				
Barium	0.0599	0.10	0.06	0	100	90	110				
Beryllium	0.0298	0.0010	0.03	0	99	90	110				
Cadmium	0.0310	0.0010	0.03	0	103	90	110				
Chromium	0.0605	0.010	0.06	0	101	90	110				
Cobalt	0.0607	0.010	0.06	0	101	90	110				
Copper	0.0624	0.010	0.06	0	104	90	110				
Iron	0.306	0.020	0.3	0	102	90	110				
Lead	0.0601	0.010	0.06	0	100	90	110				
Manganese	0.304	0.010	0.3	0	101	90	110				
Molybdenum	0.0595	0.0050	0.06	0	99	90	110				
Nickel	0.0612	0.010	0.06	0	102	90	110				
Potassium	3.09	0.50	3	0	103	90	110				
Selenium	0.0616	0.0050	0.06	0	103	90	110				
Silver	0.0301	0.0050	0.03	0	100	90	110				
Uranium	0.0612	0.0010	0.06	0	102	90	110				
Vanadium	0.0596	0.10	0.06	0	99	90	110				
Zinc	0.0619	0.010	0.06	0	103	90	110				

Associated samples: **H15030393-001C, H15030393-001D, H15030393-002C, H15030393-002D, H15030393-003C, H15030393-003D, H15030393-004C, H15030393-004D, H15030393-005C, H15030393-005D**

Run ID :Run Order: **ICPMS204-B_150406A: 13** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **04/06/15 09:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	40.5	0.10	40	0	101	70	130				
Antimony	0.000194	0.050		0		0	0				
Arsenic	0.0108	0.0050	0.01	0	108	70	130				
Barium	0.000143	0.10		0		0	0				
Beryllium	5.10E-05	0.0010		0		0	0				
Cadmium	0.0105	0.0010	0.01	0	105	70	130				
Chromium	0.0218	0.010	0.02	0	109	70	130				
Cobalt	0.0208	0.010	0.02	0	104	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105269

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150406A: 13** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **04/06/15 09:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.0208	0.010	0.02	0	104	70	130				
Iron	101	0.020	100	0	101	70	130				
Lead	0.000302	0.010		0		0	0				
Manganese	0.0211	0.010	0.02	0	106	70	130				
Molybdenum	0.867	0.0050	0.8	0	108	70	130				
Nickel	0.0211	0.010	0.02	0	105	70	130				
Potassium	39.5	0.50	40	0	99	70	130				
Selenium	0.0106	0.0050	0.01	0	106	70	130				
Silver	0.0188	0.0050	0.02	0	94	70	130				
Uranium	3.40E-05	0.0010		0		0	0				
Vanadium	0.0210	0.10	0.02	0	105	70	130				
Zinc	0.0112	0.010	0.01	0	112	70	130				

Associated samples: **H15030393-001C, H15030393-001D, H15030393-002C, H15030393-002D, H15030393-003C, H15030393-003D, H15030393-004C, H15030393-004D, H15030393-005C, H15030393-005D**

Run ID :Run Order: **ICPMS204-B_150406A: 14** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **04/06/15 09:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	40.4	0.10	40	0	101	70	130				
Antimony	9.90E-05	0.050		0							
Arsenic	5.30E-05	0.0050		0							
Barium	0.000114	0.10		0							
Beryllium	0.000130	0.0010		0							
Cadmium	0.000367	0.0010		0							
Chromium	0.00108	0.010		0							
Cobalt	-3.00E-06	0.010		0							
Copper	0.000548	0.010		0							
Iron	99.8	0.020	100	0	100	70	130				
Lead	0.000276	0.010		0							
Manganese	0.000229	0.010		0							
Molybdenum	0.866	0.0050	0.8	0	108	70	130				
Nickel	0.000627	0.010		0							
Potassium	39.6	0.50	40	0	99	70	130				
Selenium	0.000359	0.0050		0							

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105269

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150406A: 14** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **04/06/15 09:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	0.000126	0.0050		0							
Uranium	1.60E-05	0.0010		0							
Vanadium	0.000136	0.10		0							
Zinc	0.00107	0.010		0							

Associated samples: **H15030393-001C, H15030393-001D, H15030393-002C, H15030393-002D, H15030393-003C, H15030393-003D, H15030393-004C, H15030393-004D, H15030393-005C, H15030393-005D**

Run ID :Run Order: **ICPMS204-B_150406A: 19** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **04/06/15 10:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0008									
Antimony	ND	4E-05									
Arsenic	ND	6E-05									
Barium	0.0001										
Beryllium	ND	0.0002									
Cadmium	ND	2E-05									
Chromium	ND	3E-05									
Cobalt	ND	3E-05									
Copper	ND	6E-05									
Iron	0.003										
Lead	ND	3E-05									
Manganese	4E-05	4E-05									
Molybdenum	4E-05										
Nickel	ND	3E-05									
Potassium	ND	0.008									
Selenium	ND	0.0002									
Silver	ND	3E-05									
Uranium	ND	1.0E-05									
Vanadium	ND	3E-05									
Zinc	0.0003	0.0001									

Associated samples: **H15030393-001C, H15030393-002C, H15030393-003C, H15030393-004C, H15030393-005C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105269

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150406A: 20** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**

Analysis Date: **04/06/15 10:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0528	0.10	0.05	0	105	85	115				
Antimony	0.0513	0.050	0.05	0	103	85	115				
Arsenic	0.0527	0.0050	0.05	0	105	85	115				
Barium	0.0517	0.10	0.05	0.0001129	103	85	115				
Beryllium	0.0519	0.0010	0.05	0	104	85	115				
Cadmium	0.0526	0.0010	0.05	0	105	85	115				
Chromium	0.0524	0.010	0.05	0	105	85	115				
Cobalt	0.0527	0.010	0.05	0	105	85	115				
Copper	0.0534	0.010	0.05	0	107	85	115				
Iron	0.157	0.020	0.15	0.002625	103	85	115				
Lead	0.0518	0.010	0.05	0	103	85	115				
Manganese	0.0524	0.010	0.05	0.0000373	105	85	115				
Molybdenum	0.0523	0.0050	0.05	0.0000406	104	85	115				
Nickel	0.0536	0.010	0.05	0	107	85	115				
Potassium	0.991	0.50	1	0	99	85	115				
Selenium	0.0550	0.0050	0.05	0	110	85	115				
Silver	0.0210	0.0050	0.02	0	105	85	115				
Uranium	0.0510	0.0010	0.05	0	102	85	115				
Vanadium	0.0509	0.10	0.05	0	102	85	115				
Zinc	0.0547	0.010	0.05	0.000297	109	85	115				

Associated samples: **H15030393-001C, H15030393-002C, H15030393-003C, H15030393-004C, H15030393-005C**

Run ID :Run Order: **ICPMS204-B_150406A: 92** SampType: **Sample Matrix Spike** Lab ID: **H15030393-005CMS** Method: **E200.8**

Analysis Date: **04/06/15 13:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0618	0.030	0.05	0.008047	107	70	130				
Antimony	0.0542	0.0010	0.05	0.0001504	108	70	130				
Arsenic	0.0588	0.0010	0.05	0.003236	111	70	130				
Barium	0.0772	0.050	0.05	0.02558	103	70	130				
Beryllium	0.0570	0.0010	0.05	0	114	70	130				
Cadmium	0.0552	0.0010	0.05	0.0000227	110	70	130				
Chromium	0.0534	0.0050	0.05	0.0001056	107	70	130				
Cobalt	0.0556	0.0050	0.05	0.001583	108	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105269

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150406A: 92** SampType: **Sample Matrix Spike** Lab ID: **H15030393-005CMS** Method: **E200.8**

Analysis Date: **04/06/15 13:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.0564	0.0050	0.05	0.001147	110	70	130				
Iron	0.174	0.020	0.15	0.01592	106	70	130				
Lead	0.0542	0.0010	0.05	0.0000409	108	70	130				
Manganese	0.0566	0.0010	0.05	0.002208	109	70	130				
Molybdenum	0.0536	0.0010	0.05	0.0002775	107	70	130				
Nickel	0.0541	0.0050	0.05	0.0002007	108	70	130				
Potassium	2.53	1.0	1	1.409	112	70	130				
Selenium	0.0604	0.0010	0.05	0.0008002	119	70	130				
Silver	0.0208	0.0010	0.02	0	104	70	130				
Uranium	0.0548	0.00030	0.05	0.0007106	108	70	130				
Vanadium	0.0542	0.010	0.05	0.001264	106	70	130				
Zinc	0.0610	0.010	0.05	0.004033	114	70	130				

Associated samples: **H15030393-001C, H15030393-002C, H15030393-003C, H15030393-004C, H15030393-005C**

Run ID :Run Order: **ICPMS204-B_150406A: 93** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-005CMSD** Method: **E200.8**

Analysis Date: **04/06/15 13:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0604	0.030	0.05	0.008047	105	70	130	0.06175	2.3	20	
Antimony	0.0552	0.0010	0.05	0.0001504	110	70	130	0.05424	1.7	20	
Arsenic	0.0583	0.0010	0.05	0.003236	110	70	130	0.05875	0.8	20	
Barium	0.0778	0.050	0.05	0.02558	104	70	130	0.07715	0.8	20	
Beryllium	0.0572	0.0010	0.05	0	114	70	130	0.05699	0.5	20	
Cadmium	0.0553	0.0010	0.05	0.0000227	111	70	130	0.0552	0.2	20	
Chromium	0.0534	0.0050	0.05	0.0001056	107	70	130	0.05343	0.1	20	
Cobalt	0.0546	0.0050	0.05	0.001583	106	70	130	0.05557	1.7	20	
Copper	0.0556	0.0050	0.05	0.001147	109	70	130	0.05639	1.5	20	
Iron	0.172	0.020	0.15	0.01592	104	70	130	0.1742	1.2	20	
Lead	0.0540	0.0010	0.05	0.0000409	108	70	130	0.05419	0.4	20	
Manganese	0.0555	0.0010	0.05	0.002208	107	70	130	0.05663	2.0	20	
Molybdenum	0.0544	0.0010	0.05	0.0002775	108	70	130	0.05359	1.5	20	
Nickel	0.0537	0.0050	0.05	0.0002007	107	70	130	0.05413	0.8	20	
Potassium	2.49	1.0	1	1.409	108	70	130	2.529	1.6	20	
Selenium	0.0589	0.0010	0.05	0.0008002	116	70	130	0.06041	2.5	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105269

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150406A: 93** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-005CMSD** Method: **E200.8**

Analysis Date: **04/06/15 13:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	0.0209	0.0010	0.02	0	**104**	70	130	0.02082	**0.2**	20	
Uranium	0.0545	0.00030	0.05	0.0007106	**108**	70	130	0.0548	**0.5**	20	
Vanadium	0.0534	0.010	0.05	0.001264	**104**	70	130	0.05421	**1.6**	20	
Zinc	0.0600	0.010	0.05	0.004033	**112**	70	130	0.06095	**1.6**	20	

Associated samples: **H15030393-001C, H15030393-002C, H15030393-003C, H15030393-004C, H15030393-005C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105402

Date: *24-Apr-15*

Run ID :Run Order: **SOIL DRYING OVEN 2_150409A: 1** SampType: **Sample Duplicate** Lab ID: **H15030393-014ADUP** Method: **D2974**

Analysis Date: **04/10/15 09:45** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	20.5	0.20		0				18.61	9.8	20	

Associated samples: **H15030393-006A, H15030393-007A, H15030393-008A, H15030393-009A, H15030393-010A, H15030393-011A, H15030393-012A, H15030393-013A, H15030393-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105454

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **04/13/15 08:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.01	0.10	4	0	100	90	110				
Barium	0.788	0.10	0.8	0	98	90	110				
Beryllium	0.403	0.0010	0.4	0	101	90	110				
Boron	0.792	0.10	0.8	0	99	90	110				
Cobalt	0.778	0.010	0.8	0	97	90	110				
Copper	0.793	0.010	0.8	0	99	90	110				
Iron	3.92	0.020	4	0	98	90	110				
Manganese	3.94	0.010	4	0	98	90	110				
Nickel	0.769	0.010	0.8	0	96	90	110				
Zinc	0.794	0.010	0.8	0	99	90	110				

Associated samples: **H15030393-006A, H15030393-007A, H15030393-008A, H15030393-009A, H15030393-010A, H15030393-011A, H15030393-012A, H15030393-013A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150413B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **04/13/15 09:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	525	0.10	500	0	105	80	120				
Barium	7.00E-05	0.10		0		0	0				
Beryllium	1.00E-05	0.0010		0		0	0				
Boron	0.00201	0.10		0		0	0				
Cobalt	-0.00908	0.010		0		0	0				
Copper	0.000600	0.010		0		0	0				
Iron	183	0.020	200	0	92	80	120				
Manganese	-0.00914	0.010		0		0	0				
Nickel	0.00289	0.010		0		0	0				
Zinc	0.00221	0.010		0		0	0				

Associated samples: **H15030393-006A, H15030393-007A, H15030393-008A, H15030393-009A, H15030393-010A, H15030393-011A, H15030393-012A, H15030393-013A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150413B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **04/13/15 09:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	526	0.10	500	0	105	80	120				
Barium	0.491	0.10	0.5	0	98	80	120				
Beryllium	0.492	0.0010	0.5	0	98	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105454

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **04/13/15 09:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.991	0.10	1	0	99	80	120				
Cobalt	0.461	0.010	0.5	0	92	80	120				
Copper	0.496	0.010	0.5	0	99	80	120				
Iron	185	0.020	200	0	93	80	120				
Manganese	0.472	0.010	0.5	0	94	80	120				
Nickel	0.919	0.010	1	0	92	80	120				
Zinc	0.989	0.010	1	0	99	80	120				

Associated samples: **H15030393-006A, H15030393-007A, H15030393-008A, H15030393-009A, H15030393-010A, H15030393-011A, H15030393-012A, H15030393-013A, H15030393-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105464

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 56** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **04/13/15 21:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0610	0.050	0.06	0	102	90	110				
Arsenic	0.0601	0.0050	0.06	0	100	90	110				
Cadmium	0.0305	0.0010	0.03	0	102	90	110				
Chromium	0.0594	0.010	0.06	0	99	90	110				
Lead	0.0592	0.010	0.06	0	99	90	110				
Molybdenum	0.0591	0.0050	0.06	0	99	90	110				
Selenium	0.0605	0.0050	0.06	0	101	90	110				
Silver	0.0289	0.0050	0.03	0	96	90	110				
Zinc	0.0596	0.010	0.06	0	99	90	110				

Associated samples: **H15030393-007A, H15030393-008A, H15030393-010A, H15030393-011A, H15030393-013A, H15030393-014A**

Run ID :Run Order: **ICPMS204-B_150413C: 57** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **04/13/15 21:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.000122	0.050		0							
Arsenic	0.000122	0.0050		0							
Cadmium	0.000582	0.0010		0							
Chromium	0.00108	0.010		0							
Lead	0.000291	0.010		0							
Molybdenum	0.891	0.0050	0.8	0	111	70	130				
Selenium	0.000316	0.0050		0							
Silver	0.000210	0.0050		0							
Zinc	0.00120	0.010		0							

Associated samples: **H15030393-007A, H15030393-008A, H15030393-010A, H15030393-011A, H15030393-013A, H15030393-014A**

Run ID :Run Order: **ICPMS204-B_150413C: 58** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **04/13/15 21:12** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.000113	0.050		0		0	0				
Arsenic	0.0110	0.0050	0.01	0	110	70	130				
Cadmium	0.0112	0.0010	0.01	0	112	70	130				
Chromium	0.0221	0.010	0.02	0	111	70	130				
Lead	0.000265	0.010		0		0	0				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105464

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 58** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **04/13/15 21:12** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	0.899	0.0050	0.8	0	**112**	70	130				
Selenium	0.0111	0.0050	0.01	0	**111**	70	130				
Silver	0.0188	0.0050	0.02	0	**94**	70	130				
Zinc	0.0114	0.010	0.01	0	**114**	70	130				

Associated samples: **H15030393-007A, H15030393-008A, H15030393-010A, H15030393-011A, H15030393-013A, H15030393-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105464

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **04/13/15 10:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0619	0.0010	0.06	0	103	90	110				
Arsenic	0.0624	0.0010	0.06	0	104	90	110				
Cadmium	0.0309	0.0010	0.03	0	103	90	110				
Chromium	0.0606	0.0010	0.06	0	101	90	110				
Lead	0.0598	0.0010	0.06	0	100	90	110				
Molybdenum	0.0595	0.0010	0.06	0	99	90	110				
Selenium	0.0613	0.0010	0.06	0	102	90	110				
Silver	0.0300	0.0010	0.03	0	100	90	110				
Zinc	0.0618	0.0010	0.06	0	103	90	110				

Associated samples: **H15030393-007A, H15030393-008A, H15030393-010A, H15030393-011A, H15030393-013A, H15030393-014A**

Run ID :Run Order: **ICPMS204-B_150413C: 24** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **04/13/15 11:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0633	0.0010	0.06	0	105	90	110				
Arsenic	0.0636	0.0010	0.06	0	106	90	110				
Cadmium	0.0313	0.0010	0.03	0	104	90	110				
Chromium	0.0612	0.0010	0.06	0	102	90	110				
Lead	0.0608	0.0010	0.06	0	101	90	110				
Molybdenum	0.0607	0.0010	0.06	0	101	90	110				
Selenium	0.0621	0.0010	0.06	0	104	90	110				
Silver	0.0308	0.0010	0.03	0	103	90	110				
Zinc	0.0634	0.0010	0.06	0	106	90	110				

Associated samples: **H15030393-007A, H15030393-008A, H15030393-010A, H15030393-011A, H15030393-013A, H15030393-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105480

Date: *24-Apr-15*

Run ID :Run Order: **ICPMS204-B_150414B: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **04/14/15 10:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0614	0.0010	0.06	0	**102**	90	110				
Arsenic	0.0613	0.0010	0.06	0	**102**	90	110				
Cadmium	0.0306	0.0010	0.03	0	**102**	90	110				
Chromium	0.0598	0.0010	0.06	0	**100**	90	110				
Lead	0.0591	0.0010	0.06	0	**98**	90	110				
Molybdenum	0.0586	0.0010	0.06	0	**98**	90	110				
Selenium	0.0604	0.0010	0.06	0	**101**	90	110				
Silver	0.0300	0.0010	0.03	0	**100**	90	110				
Uranium	0.0584	0.00030	0.06	0	**97**	90	110				
Vanadium	0.0588	0.0010	0.06	0	**98**	90	110				

Associated samples: **H15030393-006A, H15030393-007A, H15030393-008A, H15030393-009A, H15030393-010A, H15030393-011A, H15030393-012A, H15030393-013A, H15030393-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105610

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150420B: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **04/20/15 09:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	0.794	0.10	0.8	0	99	90	110				
Zinc	0.802	0.010	0.8	0	100	90	110				

Associated samples: **H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150420B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **04/20/15 09:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	0.000140	0.10		0		0	0				
Zinc	0.00224	0.010		0		0	0				

Associated samples: **H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150420B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **04/20/15 09:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	0.494	0.10	0.5	0	99	80	120				
Zinc	0.981	0.010	1	0	98	80	120				

Associated samples: **H15030393-011A, H15030393-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105659

Date: *24-Apr-15*

Run ID :Run Order: **ICP2-HE_150422C: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **04/22/15 13:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.782	0.10	0.8	0	98	90	110				
Copper	0.797	0.010	0.8	0	100	90	110				
Lead	0.778	0.019	0.8	0	97	90	110				
Vanadium	0.798	0.10	0.8	0	100	90	110				
Zinc	0.780	0.010	0.8	0	98	90	110				

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150422C: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **04/22/15 13:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	-0.000840	0.10		0		0	0				
Copper	-0.000760	0.010		0		0	0				
Lead	0.0190	0.019		0		0	0				
Vanadium	0.00445	0.10		0		0	0				
Zinc	0.00198	0.010		0		0	0				

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Run ID :Run Order: **ICP2-HE_150422C: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **04/22/15 13:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.955	0.10	1	0	95	80	120				
Copper	0.504	0.010	0.5	0	101	80	120				
Lead	0.874	0.019	1	0	87	80	120				
Vanadium	0.486	0.10	0.5	0	97	80	120				
Zinc	0.958	0.010	1	0	96	80	120				

Associated samples: **H15030393-008A, H15030393-011A, H15030393-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15030393
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: TSS150330A

Date: *24-Apr-15*

Run ID :Run Order: **ACCU-124 (14410200)_150330A: 1** SampType: **Method Blank** Lab ID: **MB-1_150330A** Method: **A2540 D**

Analysis Date: **03/30/15 15:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	0.1									

Associated samples: **H15030393-001A, H15030393-002A, H15030393-003A, H15030393-004A, H15030393-005A**

Run ID :Run Order: **ACCU-124 (14410200)_150330A: 2** SampType: **Laboratory Control Sample** Lab ID: **LCS-2_150330A** Method: **A2540 D**

Analysis Date: **03/30/15 15:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	93.0	10	100	0	**93**	80	120				

Associated samples: **H15030393-001A, H15030393-002A, H15030393-003A, H15030393-004A, H15030393-005A**

Run ID :Run Order: **ACCU-124 (14410200)_150330A: 4** SampType: **Sample Duplicate** Lab ID: **H15030389-001ADUP** Method: **A2540 D**

Analysis Date: **03/30/15 15:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	9.00	10		0				9		5	

Associated samples: **H15030393-001A, H15030393-002A, H15030393-003A, H15030393-004A, H15030393-005A**

Run ID :Run Order: **ACCU-124 (14410200)_150330A: 1** SampType: **Sample Duplicate** Lab ID: **H15030393-004ADUP** Method: **A2540 D**

Analysis Date: **03/30/15 15:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	9.40	10		0				8.4		5	

Associated samples: **H15030393-001A, H15030393-002A, H15030393-003A, H15030393-004A, H15030393-005A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Work Order Receipt Checklist

Natural Resource Damage Program

H15030393

Login completed by: Wanda Johnson
Reviewed by: BL2000\rwilliams
Reviewed Date: 3/31/2015

Date Received: 3/30/2015
Received by: AHN
Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☐	No ☑	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	°C See Comments		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

Cooler 1 was received at 4.4C, Cooler 2 at 3.0C, Cooler 3 at 0.6, Cooler 4 at 5.2 on wet ice. Box of Sediment samples received with no ice or temperture blank at 19.0C. Sample Field Duplicate 2 (SS-01) 500 ml unpreserved container received partially frozen. Sample Field Blank 2 1L unpreserved container received partially frozen. wj 3/30/15

ANALYTICAL SUMMARY REPORT

April 29, 2015

MT DEQ-Federal Superfund
PO Box 200901
Helena, MT 59620-0901

Work Order: H15030394 Quote ID: H1088 - Silver Bow Monitoring

Project Name: Silver Bow Creek Monitoring

Energy Laboratories Inc Helena MT received the following 64 samples for MT DEQ-Federal Superfund on 3/30/2015 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H15030394-001	SS-06G	03/27/15 15:30	03/30/15	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Carbon, Dissolved Organic Conductivity Mercury, Dissolved Mercury, Total Recoverable Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Nitrogen, Total Persulfate Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Digestion, Total P Water Nitrogen, Total Persulfate Phosphorus, Total Solids, Total Suspended Solids, Suspended Volatile
H15030394-002	SS-07	03/27/15 14:30	03/30/15	Aqueous	Same As Above
H15030394-003	SS-08	03/27/15 13:15	03/30/15	Aqueous	Same As Above
H15030394-004	SS-10A	03/27/15 12:00	03/30/15	Aqueous	Same As Above
H15030394-005	SS-10B	03/27/15 11:15	03/30/15	Aqueous	Same As Above
H15030394-006	SS-11C	03/27/15 10:30	03/30/15	Aqueous	Same As Above
H15030394-007	SS-11D	03/27/15 9:30	03/30/15	Aqueous	Same As Above
H15030394-008	SS-13	03/26/15 18:30	03/30/15	Aqueous	Same As Above
H15030394-009	Field Duplicate 1 (SS-13)	03/26/15 18:30	03/30/15	Aqueous	Same As Above
H15030394-010	Field Blank 1	03/26/15 18:00	03/30/15	Aqueous	Same As Above
H15030394-011	SS-14	03/26/15 16:15	03/30/15	Aqueous	Same As Above
H15030394-012	SS-15A	03/26/15 14:45	03/30/15	Aqueous	Same As Above
H15030394-013	SS-15B	03/26/15 13:15	03/30/15	Aqueous	Same As Above
H15030394-014	SS-16B	03/26/15 11:45	03/30/15	Aqueous	Same As Above
H15030394-015	SS-17D	03/26/15 10:45	03/30/15	Aqueous	Same As Above
H15030394-016	SS-19	03/26/15 9:00	03/30/15	Aqueous	Same As Above

ANALYTICAL SUMMARY REPORT

H15030394-017	SS-06G Sediment Sieve <0.065mm	03/27/15 15:30	03/30/15	Sediment	Metals by ICP/ICPMS, Total Mercury in Solid By CVAA Percent Moisture Digestion, Total Metals Digestion, Mercury by CVAA Sieves Soil Preparation
H15030394-018	SS-06G Sediment Sieve 0.065-1mm	03/27/15 15:30	03/30/15	Sediment	Metals by ICP/ICPMS, Total Mercury in Solid By CVAA Percent Moisture Digestion, Total Metals Digestion, Mercury by CVAA Sieves
H15030394-019	SS-06G Sediment Sieve 1-2mm	03/27/15 15:30	03/30/15	Sediment	Same As Above
H15030394-020	SS-07 Sediment Sieve <0.065mm	03/27/15 14:30	03/30/15	Sediment	Same As Above
H15030394-021	SS-07 Sediment Sieve 0.065-1mm	03/27/15 14:30	03/30/15	Sediment	Same As Above
H15030394-022	SS-07 Sediment Sieve 1-2mm	03/27/15 14:30	03/30/15	Sediment	Same As Above
H15030394-023	SS-08 Sediment Sieve <0.065mm	03/27/15 13:15	03/30/15	Sediment	Same As Above
H15030394-024	SS-08 Sediment Sieve 0.065-1mm	03/27/15 13:15	03/30/15	Sediment	Same As Above
H15030394-025	SS-08 Sediment Sieve 1-2mm	03/27/15 13:15	03/30/15	Sediment	Same As Above
H15030394-026	SS-10A Sediment Sieve <0.065mm	03/27/15 12:00	03/30/15	Sediment	Same As Above
H15030394-027	SS-10A Sediment Sieve 0.065-1mm	03/27/15 12:00	03/30/15	Sediment	Same As Above
H15030394-028	SS-10A Sediment Sieve 1-2mm	03/27/15 12:00	03/30/15	Sediment	Same As Above
H15030394-029	SS-10A Duplicate 1 Sediment Sieve <0.065mm	03/27/15 12:00	03/30/15	Sediment	Same As Above
H15030394-030	SS-10A Duplicate 1 Sediment Sieve 0.065-1mm	03/27/15 12:00	03/30/15	Sediment	Same As Above
H15030394-031	SS-10A Duplicate 1 Sediment Sieve 1-2mm	03/27/15 12:00	03/30/15	Sediment	Same As Above
H15030394-032	SS-10A Duplicate 2 Sediment Sieve <0.065mm	03/27/15 12:00	03/30/15	Sediment	Same As Above
H15030394-033	SS-10A Duplicate 2 Sediment Sieve 0.065-1mm	03/27/15 12:00	03/30/15	Sediment	Same As Above
H15030394-034	SS-10A Duplicate 2 Sediment Sieve 1-2mm	03/27/15 12:00	03/30/15	Sediment	Same As Above
H15030394-035	SS-10B Sediment Sieve <0.065mm	03/27/15 11:15	03/30/15	Sediment	Same As Above
H15030394-036	SS-10B Sediment Sieve 0.065-1mm	03/27/15 11:15	03/30/15	Sediment	Same As Above

ANALYTICAL SUMMARY REPORT

H15030394-037	SS-10B Sediment Sieve 1-2mm	03/27/15 11:15	03/30/15	Sediment	Same As Above
H15030394-038	SS-11C Sediment Sieve <0.065mm	03/27/15 10:30	03/30/15	Sediment	Same As Above
H15030394-039	SS-11C Sediment Sieve 0.065-1mm	03/27/15 10:30	03/30/15	Sediment	Same As Above
H15030394-040	SS-11C Sediment Sieve 1-2mm	03/27/15 10:30	03/30/15	Sediment	Same As Above
H15030394-041	SS-11D Sediment Sieve <0.065mm	03/27/15 9:30	03/30/15	Sediment	Same As Above
H15030394-042	SS-11D Sediment Sieve 0.065-1mm	03/27/15 9:30	03/30/15	Sediment	Same As Above
H15030394-043	SS-11D Sediment Sieve 1-2mm	03/27/15 9:30	03/30/15	Sediment	Same As Above
H15030394-044	SS-13 Sediment Sieve <0.065mm	03/26/15 18:30	03/30/15	Sediment	Same As Above
H15030394-045	SS-13 Sediment Sieve 0.065-1mm	03/26/15 18:30	03/30/15	Sediment	Same As Above
H15030394-046	SS-13 Sediment Sieve 1-2mm	03/26/15 18:30	03/30/15	Sediment	Same As Above
H15030394-047	SS-14 Sediment Sieve <0.065mm	03/26/15 16:15	03/30/15	Sediment	Same As Above
H15030394-048	SS-14 Sediment Sieve 0.065-1mm	03/26/15 16:15	03/30/15	Sediment	Same As Above
H15030394-049	SS-14 Sediment Sieve 1-2mm	03/26/15 16:15	03/30/15	Sediment	Same As Above
H15030394-050	SS-15A Sediment Sieve <0.065mm	03/26/15 14:45	03/30/15	Sediment	Same As Above
H15030394-051	SS-15A Sediment Sieve 0.065-1mm	03/26/15 14:45	03/30/15	Sediment	Same As Above
H15030394-052	SS-15A Sediment Sieve 1-2mm	03/26/15 14:45	03/30/15	Sediment	Same As Above
H15030394-053	SS-15B Sediment Sieve <0.065mm	03/26/15 13:15	03/30/15	Sediment	Same As Above
H15030394-054	SS-15B Sediment Sieve 0.065-1mm	03/26/15 13:15	03/30/15	Sediment	Same As Above
H15030394-055	SS-15B Sediment Sieve 1-2mm	03/26/15 13:15	03/30/15	Sediment	Same As Above
H15030394-056	SS-16B Sediment Sieve <0.065mm	03/26/15 11:45	03/30/15	Sediment	Same As Above
H15030394-057	SS-16B Sediment Sieve 0.065-1mm	03/26/15 11:45	03/30/15	Sediment	Same As Above
H15030394-058	SS-16B Sediment Sieve 1-2mm	03/26/15 11:45	03/30/15	Sediment	Same As Above
H15030394-059	SS-17D Sediment Sieve <0.065mm	03/26/15 10:45	03/30/15	Sediment	Same As Above
H15030394-060	SS-17D Sediment Sieve 0.065-1mm	03/26/15 10:45	03/30/15	Sediment	Same As Above
H15030394-061	SS-17D Sediment Sieve 1-2mm	03/26/15 10:45	03/30/15	Sediment	Same As Above

ANALYTICAL SUMMARY REPORT

H15030394-062	SS-19 Sediment Sieve <0.065mm	03/26/15 9:00	03/30/15	Sediment	Same As Above
H15030394-063	SS-19 Sediment Sieve 0.065-1mm	03/26/15 9:00	03/30/15	Sediment	Same As Above
H15030394-064	SS-19 Sediment Sieve 1-2mm	03/26/15 9:00	03/30/15	Sediment	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Work Order: H15030394

Revised Date: 04/29/15
Report Date: 04/27/15

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

Per email request from J.Naughton on 4/27/15, the reporting limits were updated for Volatile Suspended Solids (VSS), Total Phosphorous and Nitrate + Nitrite. The reporting limit was changed for VSS from 10 mg/L to 1mg/L. The Total Phosphorous was changed from 0.005 mg/L to 0.003 mg/L and Nitrate + Nitrite was updated from 0.05 mg/L to 0.02 mg/L. The analytical data was reviewed and the reporting limits were updated for all parameters. abb 4/29/15

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G
Lab ID: H15030394-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 15:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	7	mg/L		1		A2540 D	03/30/15 15:23 / SR		L24 (14410200)_150330A	16	TSS150330A
Solids, Volatile Suspended	3	mg/L		1		A2540 E	03/31/15 10:19 / SR		MISC WC_150331A	8	150331A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	86	mg/L		4		A2320 B	04/01/15 10:11 / SR		PHSC_101-H_150401A	22	R105152
Bicarbonate as HCO3	99	mg/L		4		A2320 B	04/01/15 10:11 / SR		PHSC_101-H_150401A	22	R105152
Chloride	22	mg/L		1		E300.0	03/31/15 12:49 / SR		IC102-H_150331A	26	R105153
Sulfate	66	mg/L		1		E300.0	03/31/15 12:49 / SR		IC102-H_150331A	26	R105153
Hardness as CaCO3	147	mg/L		1		A2340 B	03/31/15 10:56 / abb		CALC_150402A	69	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.4	mg/L		0.5		A5310 C	04/02/15 03:39 / eli-c		SUB-C197799	10	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	04/01/15 10:41 / cm		FIA203-HE_150401B	25	R105171
Nitrogen, Nitrate+Nitrite as N	0.80	mg/L		0.02		E353.2	03/31/15 15:12 / cm		FIA203-HE_150331C	81	R105150
Nitrogen, Total	1.09	mg/L		0.05		A4500 N-C	04/01/15 08:07 / cm	03/31/15 09:25	FIA203-HE_150401A	20	28542
Phosphorus, Total as P	0.071	mg/L		0.003		E365.1	04/01/15 08:04 / cm	03/31/15 14:02	FIA202-HE_150401A	21	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431
Antimony	ND	mg/L		0.0005		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431
Arsenic	0.004	mg/L		0.001		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431
Barium	0.037	mg/L		0.003		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431
Beryllium	ND	mg/L		0.0008		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431
Boron	ND	mg/L		0.1		E200.7	03/31/15 10:56 / sld		ICP2-HE_150331B	25	R105154
Cadmium	ND	mg/L		0.00003		E200.8	04/13/15 15:29 / dck		ICPMS204-B_150413B	52	R105453
Calcium	42	mg/L		1		E200.7	03/31/15 10:56 / sld		ICP2-HE_150331B	25	R105154
Chromium	ND	mg/L		0.01		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431
Cobalt	ND	mg/L		0.01		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431
Copper	0.004	mg/L		0.001		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431
Iron	0.12	mg/L		0.02		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G
Lab ID: H15030394-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 15:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431
Magnesium	11	mg/L		1		E200.7	03/31/15 10:56 / sld		ICP2-HE_150331B	25	R105154
Manganese	0.048	mg/L		0.001		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431
Mercury	6.9E-06	mg/L		5E-06		E245.1	04/06/15 14:02 / rgk	04/02/15 09:17	HGCV202-H_150406A	33	28571
Molybdenum	0.006	mg/L		0.005		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431
Nickel	ND	mg/L		0.002		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431
Potassium	3	mg/L		1		E200.7	03/31/15 10:56 / sld		ICP2-HE_150331B	25	R105154
Selenium	ND	mg/L		0.001		E200.8	04/08/15 15:20 / dck		ICPMS204-B_150408A	133	R105331
Silver	ND	mg/L		0.0002		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431
Sodium	18	mg/L		1		E200.7	03/31/15 10:56 / sld		ICP2-HE_150331B	25	R105154
Uranium	0.0043	mg/L		0.0002		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431
Vanadium	ND	mg/L		0.1		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431
Zinc	ND	mg/L		0.008		E200.8	04/09/15 11:27 / dck		ICPMS204-B_150409C	28	R105431
METALS, TOTAL RECOVERABLE											
Aluminum	0.069	mg/L		0.009		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Antimony	ND	mg/L		0.0005		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Arsenic	0.005	mg/L		0.001		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Barium	0.036	mg/L		0.003		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Beryllium	ND	mg/L		0.0008		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Boron	ND	mg/L		0.1		E200.7	04/01/15 16:16 / sld	03/31/15 09:40	ICP2-HE_150401B	54	28545
Cadmium	0.00008	mg/L		0.00003		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Calcium	43	mg/L		1		E200.7	04/01/15 16:16 / sld	03/31/15 09:40	ICP2-HE_150401B	54	28545
Chromium	ND	mg/L		0.01		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Cobalt	ND	mg/L		0.01		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Copper	0.007	mg/L		0.001		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Iron	0.48	mg/L		0.02		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Lead	0.0011	mg/L		0.0003		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Magnesium	11	mg/L		1		E200.7	04/01/15 16:16 / sld	03/31/15 09:40	ICP2-HE_150401B	54	28545
Manganese	0.068	mg/L		0.001		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Mercury	0.000011	mg/L		5E-06		E245.1	04/06/15 14:06 / rgk	04/02/15 09:17	HGCV202-H_150406A	34	28571
Molybdenum	0.006	mg/L		0.005		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G
Lab ID: H15030394-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 15:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Potassium	3	mg/L		1		E200.7	04/01/15 16:16 / sld	03/31/15 09:40	ICP2-HE_150401B	54	28545
Selenium	ND	mg/L		0.001		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Silver	ND	mg/L		0.0002		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Sodium	18	mg/L		1		E200.7	04/01/15 16:16 / sld	03/31/15 09:40	ICP2-HE_150401B	54	28545
Uranium	0.0044	mg/L		0.0002		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Vanadium	ND	mg/L		0.1		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545
Zinc	0.023	mg/L		0.008		E200.8	04/07/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150407A	63	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07
Lab ID: H15030394-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 14:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	8	mg/L		1		A2540 D	03/30/15 15:23 / SR		L24 (14410200)_150330A	17	TSS150330A
Solids, Volatile Suspended	5	mg/L		1		A2540 E	03/31/15 10:19 / SR		MISC WC_150331A	9	150331A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	100	mg/L		4		A2320 B	04/01/15 10:17 / SR		PHSC_101-H_150401A	24	R105152
Bicarbonate as HCO3	130	mg/L		4		A2320 B	04/01/15 10:17 / SR		PHSC_101-H_150401A	24	R105152
Chloride	25	mg/L		1		E300.0	03/31/15 13:00 / SR		IC102-H_150331A	27	R105153
Sulfate	58	mg/L		1		E300.0	03/31/15 13:00 / SR		IC102-H_150331A	27	R105153
Hardness as CaCO3	139	mg/L		1		A2340 B	03/31/15 10:59 / abb		CALC_150402A	80	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	5.1	mg/L		0.5		A5310 C	04/02/15 03:54 / eli-c		SUB-C197799	11	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	3.4	mg/L	D	0.1		E350.1	04/01/15 13:09 / cm		FIA203-HE_150401C	13	R105174
Nitrogen, Nitrate+Nitrite as N	0.70	mg/L		0.02		E353.2	03/31/15 15:13 / cm		FIA203-HE_150331C	82	R105150
Nitrogen, Total	5.4	mg/L	D	0.2		A4500 N-C	04/01/15 13:53 / cm	04/01/15 09:33	FIA203-HE_150401D	15	28562
Phosphorus, Total as P	0.399	mg/L		0.003		E365.1	04/01/15 08:05 / cm	03/31/15 14:02	FIA202-HE_150401A	22	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Antimony	ND	mg/L		0.0005		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Arsenic	0.003	mg/L		0.001		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Barium	0.035	mg/L		0.003		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Beryllium	ND	mg/L		0.0008		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Boron	ND	mg/L		0.1		E200.7	03/31/15 10:59 / sld		ICP2-HE_150331B	26	R105154
Cadmium	0.00004	mg/L		0.00003		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Calcium	39	mg/L		1		E200.7	03/31/15 10:59 / sld		ICP2-HE_150331B	26	R105154
Chromium	ND	mg/L		0.01		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Cobalt	ND	mg/L		0.01		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Copper	0.006	mg/L		0.001		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Iron	0.10	mg/L		0.02		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07
Lab ID: H15030394-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 14:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Magnesium	10	mg/L		1		E200.7	03/31/15 10:59 / sld		ICP2-HE_150331B	26	R105154
Manganese	0.061	mg/L		0.001		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Mercury	ND	mg/L		5E-06		E245.1	04/06/15 15:37 / rgk	04/02/15 09:33	HGCV202-H_150406B	14	28572
Molybdenum	ND	mg/L		0.005		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Nickel	ND	mg/L		0.002		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Potassium	5	mg/L		1		E200.7	03/31/15 10:59 / sld		ICP2-HE_150331B	26	R105154
Selenium	ND	mg/L		0.001		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Silver	ND	mg/L		0.0002		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Sodium	22	mg/L		1		E200.7	03/31/15 10:59 / sld		ICP2-HE_150331B	26	R105154
Uranium	0.0040	mg/L		0.0002		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Vanadium	ND	mg/L		0.1		E200.8	04/09/15 11:38 / dck		ICPMS204-B_150409C	32	R105431
Zinc	0.021	mg/L		0.008		E200.8	04/08/15 15:31 / dck		ICPMS204-B_150408A	137	R105331
METALS, TOTAL RECOVERABLE											
Aluminum	0.073	mg/L		0.009		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Antimony	ND	mg/L		0.0005		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Arsenic	0.004	mg/L		0.001		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Barium	0.033	mg/L		0.003		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Beryllium	ND	mg/L		0.0008		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Boron	ND	mg/L		0.1		E200.7	04/01/15 16:31 / sld	03/31/15 09:40	ICP2-HE_150401B	58	28545
Cadmium	0.00008	mg/L		0.00003		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Calcium	41	mg/L		1		E200.7	04/01/15 16:31 / sld	03/31/15 09:40	ICP2-HE_150401B	58	28545
Chromium	ND	mg/L		0.01		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Cobalt	ND	mg/L		0.01		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Copper	0.010	mg/L		0.001		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Iron	0.38	mg/L		0.02		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Lead	0.0011	mg/L		0.0003		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Magnesium	11	mg/L		1		E200.7	04/01/15 16:31 / sld	03/31/15 09:40	ICP2-HE_150401B	58	28545
Manganese	0.073	mg/L		0.001		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Mercury	5.8E-06	mg/L		5E-06		E245.1	04/06/15 15:49 / rgk	04/02/15 09:33	HGCV202-H_150406B	17	28572
Molybdenum	0.005	mg/L		0.005		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07
Lab ID: H15030394-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 14:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Potassium	5	mg/L		1		E200.7	04/01/15 16:31 / sld	03/31/15 09:40	ICP2-HE_150401B	58	28545
Selenium	ND	mg/L		0.001		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Silver	ND	mg/L		0.0002		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Sodium	22	mg/L		1		E200.7	04/01/15 16:31 / sld	03/31/15 09:40	ICP2-HE_150401B	58	28545
Uranium	0.0039	mg/L		0.0002		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Vanadium	ND	mg/L		0.1		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545
Zinc	0.034	mg/L		0.008		E200.8	04/08/15 15:33 / dck	03/31/15 09:40	ICPMS204-B_150408A	138	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08
Lab ID: H15030394-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 13:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	8	mg/L	D	2		A2540 D	03/30/15 15:23 / SR		L24 (14410200)_150330A	18	TSS150330A
Solids, Volatile Suspended	5	mg/L		1		A2540 E	03/31/15 10:20 / SR		MISC WC_150331A	10	150331A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	98	mg/L		4		A2320 B	04/01/15 10:23 / SR		PHSC_101-H_150401A	26	R105152
Bicarbonate as HCO3	120	mg/L		4		A2320 B	04/01/15 10:23 / SR		PHSC_101-H_150401A	26	R105152
Chloride	26	mg/L		1		E300.0	03/31/15 13:11 / SR		IC102-H_150331A	28	R105153
Sulfate	66	mg/L		1		E300.0	03/31/15 13:11 / SR		IC102-H_150331A	28	R105153
Hardness as CaCO3	147	mg/L		1		A2340 B	03/31/15 11:03 / abb		CALC_150402A	91	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	5.7	mg/L		0.5		A5310 C	04/02/15 04:10 / eli-c		SUB-C197799	12	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	2.2	mg/L	D	0.1		E350.1	04/01/15 13:10 / cm		FIA203-HE_150401C	14	R105174
Nitrogen, Nitrate+Nitrite as N	1.26	mg/L		0.02		E353.2	03/31/15 15:14 / cm		FIA203-HE_150331C	83	R105150
Nitrogen, Total	4.5	mg/L	D	0.2		A4500 N-C	04/01/15 13:54 / cm	04/01/15 09:34	FIA203-HE_150401D	16	28562
Phosphorus, Total as P	0.346	mg/L		0.003		E365.1	04/01/15 08:07 / cm	03/31/15 14:02	FIA202-HE_150401A	23	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
Antimony	ND	mg/L		0.0005		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
Arsenic	0.004	mg/L		0.001		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
Barium	0.037	mg/L		0.003		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
Beryllium	ND	mg/L		0.0008		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
Boron	ND	mg/L		0.1		E200.7	03/31/15 11:03 / sld		ICP2-HE_150331B	27	R105154
Cadmium	0.00010	mg/L		0.00003		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
Calcium	41	mg/L		1		E200.7	03/31/15 11:03 / sld		ICP2-HE_150331B	27	R105154
Chromium	ND	mg/L		0.01		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
Cobalt	ND	mg/L		0.01		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
Copper	0.009	mg/L		0.001		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
Iron	0.15	mg/L		0.02		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08
Lab ID: H15030394-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 13:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	0.0003	mg/L		0.0003		E200.8	04/13/15 15:32 / dck		ICPMS204-B_150413B	53	R105453
Magnesium	11	mg/L		1		E200.7	03/31/15 11:03 / sld		ICP2-HE_150331B	27	R105154
Manganese	0.148	mg/L		0.001		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
Mercury	ND	mg/L		5E-06		E245.1	04/06/15 15:53 / rgk	04/02/15 09:33	HGCV202-H_150406B	18	28572
Molybdenum	ND	mg/L		0.005		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
Nickel	ND	mg/L		0.002		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
Potassium	5	mg/L		1		E200.7	03/31/15 11:03 / sld		ICP2-HE_150331B	27	R105154
Selenium	ND	mg/L		0.001		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
Silver	ND	mg/L		0.0002		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
Sodium	24	mg/L		1		E200.7	03/31/15 11:03 / sld		ICP2-HE_150331B	27	R105154
Uranium	0.0043	mg/L		0.0002		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
Vanadium	ND	mg/L		0.1		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
Zinc	0.048	mg/L		0.008		E200.8	04/09/15 12:06 / dck		ICPMS204-B_150409C	33	R105431
METALS, TOTAL RECOVERABLE											
Aluminum	0.097	mg/L		0.009		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Antimony	ND	mg/L		0.0005		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Arsenic	0.005	mg/L		0.001		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Barium	0.037	mg/L		0.003		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Beryllium	ND	mg/L		0.0008		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Boron	ND	mg/L		0.1		E200.7	04/01/15 16:42 / sld	03/31/15 09:40	ICP2-HE_150401B	61	28545
Cadmium	0.00022	mg/L		0.00003		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Calcium	43	mg/L		1		E200.7	04/01/15 16:42 / sld	03/31/15 09:40	ICP2-HE_150401B	61	28545
Chromium	ND	mg/L		0.01		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Cobalt	ND	mg/L		0.01		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Copper	0.015	mg/L		0.001		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Iron	0.45	mg/L		0.02		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Lead	0.0018	mg/L		0.0003		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Magnesium	11	mg/L		1		E200.7	04/01/15 16:42 / sld	03/31/15 09:40	ICP2-HE_150401B	61	28545
Manganese	0.160	mg/L		0.001		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Mercury	7.2E-06	mg/L		5E-06		E245.1	04/06/15 15:58 / rgk	04/02/15 09:33	HGCV202-H_150406B	19	28572
Molybdenum	ND	mg/L		0.005		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08
Lab ID: H15030394-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 13:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Potassium	5	mg/L		1		E200.7	04/01/15 16:42 / sld	03/31/15 09:40	ICP2-HE_150401B	61	28545
Selenium	ND	mg/L		0.001		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Silver	ND	mg/L		0.0002		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Sodium	24	mg/L		1		E200.7	04/01/15 16:42 / sld	03/31/15 09:40	ICP2-HE_150401B	61	28545
Uranium	0.0042	mg/L		0.0002		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Vanadium	ND	mg/L		0.1		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545
Zinc	0.060	mg/L		0.008		E200.8	04/08/15 15:38 / dck	03/31/15 09:40	ICPMS204-B_150408A	140	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A
Lab ID: H15030394-004
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 12:00
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	6	mg/L		1		A2540 D	03/30/15 15:23 / SR		L24 (14410200)_150330A	19	TSS150330A
Solids, Volatile Suspended	4	mg/L		1		A2540 E	03/31/15 10:20 / SR		MISC WC_150331A	11	150331A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	94	mg/L		4		A2320 B	04/01/15 10:29 / SR		PHSC_101-H_150401A	28	R105152
Bicarbonate as HCO3	110	mg/L		4		A2320 B	04/01/15 10:29 / SR		PHSC_101-H_150401A	28	R105152
Chloride	26	mg/L		1		E300.0	03/31/15 14:18 / SR		IC102-H_150331A	34	R105153
Sulfate	74	mg/L		1		E300.0	03/31/15 14:18 / SR		IC102-H_150331A	34	R105153
Hardness as CaCO3	156	mg/L		1		A2340 B	03/31/15 11:07 / abb		CALC_150402A	102	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.4	mg/L		0.5		A5310 C	04/02/15 04:31 / eli-c		SUB-C197799	13	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	0.78	mg/L		0.05		E350.1	04/01/15 10:45 / cm		FIA203-HE_150401B	28	R105171
Nitrogen, Nitrate+Nitrite as N	1.50	mg/L		0.02		E353.2	03/31/15 15:15 / cm		FIA203-HE_150331C	84	R105150
Nitrogen, Total	3.06	mg/L	D	0.06		A4500 N-C	04/01/15 08:58 / cm	03/31/15 09:25	FIA203-HE_150401A	59	28542
Phosphorus, Total as P	0.284	mg/L		0.003		E365.1	04/01/15 08:08 / cm	03/31/15 14:02	FIA202-HE_150401A	24	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Antimony	ND	mg/L		0.0005		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Arsenic	0.004	mg/L		0.001		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Barium	0.038	mg/L		0.003		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Beryllium	ND	mg/L		0.0008		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Boron	ND	mg/L		0.1		E200.7	03/31/15 11:07 / sld		ICP2-HE_150331B	28	R105154
Cadmium	0.00018	mg/L		0.00003		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Calcium	44	mg/L		1		E200.7	03/31/15 11:07 / sld		ICP2-HE_150331B	28	R105154
Chromium	ND	mg/L		0.01		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Cobalt	ND	mg/L		0.01		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Copper	0.025	mg/L		0.001		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Iron	0.12	mg/L		0.02		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A
Lab ID: H15030394-004
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 12:00
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	0.0003	mg/L		0.0003		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Magnesium	11	mg/L		1		E200.7	03/31/15 11:07 / sld		ICP2-HE_150331B	28	R105154
Manganese	0.203	mg/L		0.001		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Mercury	ND	mg/L		5E-06		E245.1	04/06/15 16:02 / rgk	04/02/15 09:33	HGCV202-H_150406B	20	28572
Molybdenum	0.005	mg/L		0.005		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Nickel	ND	mg/L		0.002		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Potassium	5	mg/L		1		E200.7	03/31/15 11:07 / sld		ICP2-HE_150331B	28	R105154
Selenium	ND	mg/L		0.001		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Silver	ND	mg/L		0.0002		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Sodium	24	mg/L		1		E200.7	03/31/15 11:07 / sld		ICP2-HE_150331B	28	R105154
Uranium	0.0047	mg/L		0.0002		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Vanadium	ND	mg/L		0.1		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
Zinc	0.064	mg/L		0.008		E200.8	04/09/15 12:08 / dck		ICPMS204-B_150409C	34	R105431
METALS, TOTAL RECOVERABLE											
Aluminum	0.082	mg/L		0.009		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Antimony	ND	mg/L		0.0005		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Arsenic	0.005	mg/L		0.001		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Barium	0.037	mg/L		0.003		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Beryllium	ND	mg/L		0.0008		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Boron	ND	mg/L		0.1		E200.7	04/01/15 16:46 / sld	03/31/15 09:40	ICP2-HE_150401B	62	28545
Cadmium	0.00034	mg/L		0.00003		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Calcium	46	mg/L		1		E200.7	04/01/15 16:46 / sld	03/31/15 09:40	ICP2-HE_150401B	62	28545
Chromium	ND	mg/L		0.01		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Cobalt	ND	mg/L		0.01		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Copper	0.028	mg/L		0.001		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Iron	0.43	mg/L		0.02		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Lead	0.0015	mg/L		0.0003		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Magnesium	12	mg/L		1		E200.7	04/01/15 16:46 / sld	03/31/15 09:40	ICP2-HE_150401B	62	28545
Manganese	0.217	mg/L		0.001		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Mercury	8.1E-06	mg/L		5E-06		E245.1	04/06/15 16:06 / rgk	04/02/15 09:33	HGCV202-H_150406B	21	28572
Molybdenum	0.005	mg/L		0.005		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A
Lab ID: H15030394-004
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 12:00
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Potassium	5	mg/L		1		E200.7	04/01/15 16:46 / sld	03/31/15 09:40	ICP2-HE_150401B	62	28545
Selenium	ND	mg/L		0.001		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Silver	ND	mg/L		0.0002		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Sodium	24	mg/L		1		E200.7	04/01/15 16:46 / sld	03/31/15 09:40	ICP2-HE_150401B	62	28545
Uranium	0.0046	mg/L		0.0002		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Vanadium	ND	mg/L		0.1		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545
Zinc	0.097	mg/L		0.008		E200.8	04/08/15 15:43 / dck	03/31/15 09:40	ICPMS204-B_150408A	142	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B
Lab ID: H15030394-005
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 11:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	6	mg/L		1		A2540 D	03/30/15 15:26 / SR		L24 (14410200)_150330A	20	TSS150330A
Solids, Volatile Suspended	4	mg/L		1		A2540 E	03/31/15 10:21 / SR		MISC WC_150331A	12	150331A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	95	mg/L		4		A2320 B	04/01/15 10:35 / SR		PHSC_101-H_150401A	30	R105152
Bicarbonate as HCO3	120	mg/L		4		A2320 B	04/01/15 10:35 / SR		PHSC_101-H_150401A	30	R105152
Chloride	26	mg/L		1		E300.0	03/31/15 14:29 / SR		IC102-H_150331A	35	R105153
Sulfate	75	mg/L		1		E300.0	03/31/15 14:29 / SR		IC102-H_150331A	35	R105153
Hardness as CaCO3	155	mg/L		1		A2340 B	03/31/15 11:11 / abb		CALC_150402A	113	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.1	mg/L		0.5		A5310 C	04/02/15 05:41 / eli-c		SUB-C197799	15	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	0.77	mg/L		0.05		E350.1	04/01/15 10:46 / cm		FIA203-HE_150401B	29	R105171
Nitrogen, Nitrate+Nitrite as N	1.47	mg/L		0.02		E353.2	03/31/15 15:17 / cm		FIA203-HE_150331C	85	R105150
Nitrogen, Total	2.99	mg/L	D	0.06		A4500 N-C	04/01/15 08:59 / cm	03/31/15 09:25	FIA203-HE_150401A	60	28542
Phosphorus, Total as P	0.290	mg/L		0.003		E365.1	04/01/15 08:09 / cm	03/31/15 14:02	FIA202-HE_150401A	25	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Antimony	ND	mg/L		0.0005		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Arsenic	0.004	mg/L		0.001		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Barium	0.041	mg/L		0.003		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Beryllium	ND	mg/L		0.0008		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Boron	ND	mg/L		0.1		E200.7	03/31/15 11:11 / sld		ICP2-HE_150331B	29	R105154
Cadmium	0.00021	mg/L		0.00003		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Calcium	44	mg/L		1		E200.7	03/31/15 11:11 / sld		ICP2-HE_150331B	29	R105154
Chromium	ND	mg/L		0.01		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Cobalt	ND	mg/L		0.01		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Copper	0.018	mg/L		0.001		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Iron	0.12	mg/L		0.02		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B
Lab ID: H15030394-005
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 11:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Magnesium	11	mg/L		1		E200.7	03/31/15 11:11 / sld		ICP2-HE_150331B	29	R105154
Manganese	0.203	mg/L		0.001		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Mercury	ND	mg/L		5E-06		E245.1	04/06/15 16:10 / rgk	04/02/15 09:33	HGCV202-H_150406B	22	28572
Molybdenum	0.005	mg/L		0.005		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Nickel	ND	mg/L		0.002		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Potassium	5	mg/L		1		E200.7	03/31/15 11:11 / sld		ICP2-HE_150331B	29	R105154
Selenium	ND	mg/L		0.001		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Silver	ND	mg/L		0.0002		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Sodium	24	mg/L		1		E200.7	03/31/15 11:11 / sld		ICP2-HE_150331B	29	R105154
Uranium	0.0045	mg/L		0.0002		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Vanadium	ND	mg/L		0.1		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
Zinc	0.063	mg/L		0.008		E200.8	04/09/15 12:11 / dck		ICPMS204-B_150409C	35	R105431
METALS, TOTAL RECOVERABLE											
Aluminum	0.074	mg/L		0.009		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Antimony	ND	mg/L		0.0005		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Arsenic	0.005	mg/L		0.001		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Barium	0.037	mg/L		0.003		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Beryllium	ND	mg/L		0.0008		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Boron	ND	mg/L		0.1		E200.7	04/01/15 16:49 / sld	03/31/15 09:40	ICP2-HE_150401B	63	28545
Cadmium	0.00033	mg/L		0.00003		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Calcium	46	mg/L		1		E200.7	04/01/15 16:49 / sld	03/31/15 09:40	ICP2-HE_150401B	63	28545
Chromium	ND	mg/L		0.01		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Cobalt	ND	mg/L		0.01		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Copper	0.027	mg/L		0.001		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Iron	0.41	mg/L		0.02		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Lead	0.0012	mg/L		0.0003		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Magnesium	11	mg/L		1		E200.7	04/01/15 16:49 / sld	03/31/15 09:40	ICP2-HE_150401B	63	28545
Manganese	0.217	mg/L		0.001		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Mercury	ND	mg/L		5E-06		E245.1	04/06/15 16:15 / rgk	04/02/15 09:33	HGCV202-H_150406B	23	28572
Molybdenum	0.005	mg/L		0.005		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B
Lab ID: H15030394-005
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 11:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Potassium	5	mg/L		1		E200.7	04/01/15 16:49 / sld	03/31/15 09:40	ICP2-HE_150401B	63	28545
Selenium	ND	mg/L		0.001		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Silver	ND	mg/L		0.0002		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Sodium	24	mg/L		1		E200.7	04/01/15 16:49 / sld	03/31/15 09:40	ICP2-HE_150401B	63	28545
Uranium	0.0046	mg/L		0.0002		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Vanadium	ND	mg/L		0.1		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545
Zinc	0.080	mg/L		0.008		E200.8	04/08/15 15:57 / dck	03/31/15 09:40	ICPMS204-B_150408A	147	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C
Lab ID: H15030394-006
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 10:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	9	mg/L		1		A2540 D	03/30/15 15:26 / SR		L24 (14410200)_150330A	21	TSS150330A
Solids, Volatile Suspended	4	mg/L		1		A2540 E	03/31/15 10:21 / SR		MISC WC_150331A	13	150331A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	04/01/15 10:41 / SR		PHSC_101-H_150401A	32	R105152
Bicarbonate as HCO3	130	mg/L		4		A2320 B	04/01/15 10:41 / SR		PHSC_101-H_150401A	32	R105152
Chloride	50	mg/L		1		E300.0	03/31/15 14:40 / SR		IC102-H_150331A	36	R105153
Sulfate	87	mg/L		1		E300.0	03/31/15 14:40 / SR		IC102-H_150331A	36	R105153
Hardness as CaCO3	196	mg/L		1		A2340 B	03/31/15 11:15 / abb		CALC_150402A	124	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.1	mg/L		0.5		A5310 C	04/02/15 06:32 / eli-c		SUB-C197799	16	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	0.96	mg/L		0.05		E350.1	04/01/15 10:47 / cm		FIA203-HE_150401B	30	R105171
Nitrogen, Nitrate+Nitrite as N	1.45	mg/L		0.02		E353.2	03/31/15 15:18 / cm		FIA203-HE_150331C	86	R105150
Nitrogen, Total	3.2	mg/L	D	0.2		A4500 N-C	04/01/15 13:55 / cm	04/01/15 09:34	FIA203-HE_150401D	17	28562
Phosphorus, Total as P	0.334	mg/L		0.003		E365.1	04/01/15 08:12 / cm	03/31/15 14:02	FIA202-HE_150401A	28	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/13/15 15:34 / dck		ICPMS204-B_150413B	54	R105453
Antimony	ND	mg/L		0.0005		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431
Arsenic	0.005	mg/L		0.001		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431
Barium	0.041	mg/L		0.003		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431
Beryllium	ND	mg/L		0.0008		E200.8	04/13/15 15:34 / dck		ICPMS204-B_150413B	54	R105453
Boron	ND	mg/L		0.1		E200.7	03/31/15 11:15 / sld		ICP2-HE_150331B	30	R105154
Cadmium	0.00023	mg/L		0.00003		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431
Calcium	58	mg/L		1		E200.7	03/31/15 11:15 / sld		ICP2-HE_150331B	30	R105154
Chromium	ND	mg/L		0.01		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431
Cobalt	ND	mg/L		0.01		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431
Copper	0.016	mg/L		0.001		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431
Iron	0.09	mg/L		0.02		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C
Lab ID: H15030394-006
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 10:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431
Magnesium	12	mg/L		1		E200.7	03/31/15 11:15 / sld		ICP2-HE_150331B	30	R105154
Manganese	0.317	mg/L		0.001		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431
Mercury	ND	mg/L		5E-06		E245.1	04/06/15 16:19 / rgk	04/02/15 09:33	HGCV202-H_150406B	24	28572
Molybdenum	0.005	mg/L		0.005		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431
Nickel	ND	mg/L		0.002		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431
Potassium	6	mg/L		1		E200.7	03/31/15 11:15 / sld		ICP2-HE_150331B	30	R105154
Selenium	ND	mg/L		0.001		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431
Silver	ND	mg/L		0.0002		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431
Sodium	29	mg/L		1		E200.7	03/31/15 11:15 / sld		ICP2-HE_150331B	30	R105154
Uranium	0.0051	mg/L		0.0002		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431
Vanadium	ND	mg/L		0.1		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431
Zinc	0.110	mg/L		0.008		E200.8	04/09/15 13:54 / dck		ICPMS204-B_150409C	44	R105431
METALS, TOTAL RECOVERABLE											
Aluminum	0.145	mg/L		0.009		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Antimony	ND	mg/L		0.0005		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Arsenic	0.006	mg/L		0.001		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Barium	0.041	mg/L		0.003		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Beryllium	ND	mg/L		0.0008		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Boron	ND	mg/L		0.1		E200.7	04/01/15 16:53 / sld	03/31/15 09:40	ICP2-HE_150401B	64	28545
Cadmium	0.00044	mg/L		0.00003		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Calcium	61	mg/L		1		E200.7	04/01/15 16:53 / sld	03/31/15 09:40	ICP2-HE_150401B	64	28545
Chromium	ND	mg/L		0.01		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Cobalt	ND	mg/L		0.01		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Copper	0.028	mg/L		0.001		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Iron	0.41	mg/L		0.02		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Lead	0.0016	mg/L		0.0003		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Magnesium	13	mg/L		1		E200.7	04/01/15 16:53 / sld	03/31/15 09:40	ICP2-HE_150401B	64	28545
Manganese	0.335	mg/L		0.001		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Mercury	7.9E-06	mg/L		5E-06		E245.1	04/06/15 16:23 / rgk	04/02/15 09:33	HGCV202-H_150406B	25	28572
Molybdenum	0.005	mg/L		0.005		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C
Lab ID: H15030394-006
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 10:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Potassium	6	mg/L		1		E200.7	04/01/15 16:53 / sld	03/31/15 09:40	ICP2-HE_150401B	64	28545
Selenium	ND	mg/L		0.001		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Silver	ND	mg/L		0.0002		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Sodium	29	mg/L		1		E200.7	04/01/15 16:53 / sld	03/31/15 09:40	ICP2-HE_150401B	64	28545
Uranium	0.0052	mg/L		0.0002		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Vanadium	ND	mg/L		0.1		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545
Zinc	0.131	mg/L		0.008		E200.8	04/08/15 16:05 / dck	03/31/15 09:40	ICPMS204-B_150408A	149	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D
Lab ID: H15030394-007
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 09:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	15	mg/L		1		A2540 D	03/30/15 15:27 / SR		L24 (14410200)_150330A	22	TSS150330A
Solids, Volatile Suspended	5	mg/L		1		A2540 E	03/31/15 10:22 / SR		MISC WC_150331A	14	150331A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	96	mg/L		4		A2320 B	04/01/15 10:47 / SR		PHSC_101-H_150401A	34	R105152
Bicarbonate as HCO3	120	mg/L		4		A2320 B	04/01/15 10:47 / SR		PHSC_101-H_150401A	34	R105152
Chloride	34	mg/L		1		E300.0	03/31/15 14:51 / SR		IC102-H_150331A	37	R105153
Sulfate	62	mg/L		1		E300.0	03/31/15 14:51 / SR		IC102-H_150331A	37	R105153
Hardness as CaCO3	153	mg/L		1		A2340 B	03/31/15 11:37 / abb		CALC_150402A	135	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.8	mg/L		0.5		A5310 C	04/02/15 06:48 / eli-c		SUB-C197799	17	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	0.71	mg/L		0.05		E350.1	04/01/15 10:48 / cm		FIA203-HE_150401B	31	R105171
Nitrogen, Nitrate+Nitrite as N	0.99	mg/L		0.02		E353.2	03/31/15 15:21 / cm		FIA203-HE_150331C	89	R105150
Nitrogen, Total	6.1	mg/L	D	0.2		A4500 N-C	04/01/15 13:59 / cm	04/01/15 09:34	FIA203-HE_150401D	20	28562
Phosphorus, Total as P	0.268	mg/L		0.003		E365.1	04/01/15 08:13 / cm	03/31/15 14:02	FIA202-HE_150401A	29	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/13/15 15:37 / dck		ICPMS204-B_150413B	55	R105453
Antimony	ND	mg/L		0.0005		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431
Arsenic	0.007	mg/L		0.001		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431
Barium	0.035	mg/L		0.003		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431
Beryllium	ND	mg/L		0.0008		E200.8	04/13/15 15:37 / dck		ICPMS204-B_150413B	55	R105453
Boron	ND	mg/L		0.1		E200.7	03/31/15 11:37 / sld		ICP2-HE_150331B	36	R105154
Cadmium	0.00015	mg/L		0.00003		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431
Calcium	45	mg/L		1		E200.7	03/31/15 11:37 / sld		ICP2-HE_150331B	36	R105154
Chromium	ND	mg/L		0.01		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431
Cobalt	ND	mg/L		0.01		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431
Copper	0.011	mg/L		0.001		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431
Iron	0.06	mg/L		0.02		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D
Lab ID: H15030394-007
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 09:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431
Magnesium	10	mg/L		1		E200.7	03/31/15 11:37 / sld		ICP2-HE_150331B	36	R105154
Manganese	0.222	mg/L		0.001		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431
Mercury	ND	mg/L		5E-06		E245.1	04/06/15 16:36 / rgk	04/02/15 09:33	HGCV202-H_150406B	28	28572
Molybdenum	ND	mg/L		0.005		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431
Nickel	ND	mg/L		0.002		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431
Potassium	5	mg/L		1		E200.7	03/31/15 11:37 / sld		ICP2-HE_150331B	36	R105154
Selenium	ND	mg/L		0.001		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431
Silver	ND	mg/L		0.0002		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431
Sodium	24	mg/L		1		E200.7	03/31/15 11:37 / sld		ICP2-HE_150331B	36	R105154
Uranium	0.0036	mg/L		0.0002		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431
Vanadium	ND	mg/L		0.1		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431
Zinc	0.077	mg/L		0.008		E200.8	04/09/15 13:56 / dck		ICPMS204-B_150409C	45	R105431
METALS, TOTAL RECOVERABLE											
Aluminum	0.496	mg/L		0.009		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Antimony	ND	mg/L		0.0005		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Arsenic	0.008	mg/L		0.001		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Barium	0.041	mg/L		0.003		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Beryllium	ND	mg/L		0.0008		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Boron	ND	mg/L		0.1		E200.7	04/01/15 16:57 / sld	03/31/15 09:40	ICP2-HE_150401B	65	28545
Cadmium	0.00034	mg/L		0.00003		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Calcium	47	mg/L		1		E200.7	04/01/15 16:57 / sld	03/31/15 09:40	ICP2-HE_150401B	65	28545
Chromium	ND	mg/L		0.01		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Cobalt	ND	mg/L		0.01		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Copper	0.022	mg/L		0.001		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Iron	0.57	mg/L		0.02		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Lead	0.0017	mg/L		0.0003		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Magnesium	10	mg/L		1		E200.7	04/01/15 16:57 / sld	03/31/15 09:40	ICP2-HE_150401B	65	28545
Manganese	0.254	mg/L		0.001		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Mercury	9.6E-06	mg/L		5E-06		E245.1	04/06/15 16:48 / rgk	04/02/15 09:33	HGCV202-H_150406B	31	28572
Molybdenum	ND	mg/L		0.005		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D
Lab ID: H15030394-007
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 09:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Potassium	5	mg/L		1		E200.7	04/01/15 16:57 / sld	03/31/15 09:40	ICP2-HE_150401B	65	28545
Selenium	ND	mg/L		0.001		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Silver	ND	mg/L		0.0002		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Sodium	24	mg/L		1		E200.7	04/01/15 16:57 / sld	03/31/15 09:40	ICP2-HE_150401B	65	28545
Uranium	0.0038	mg/L		0.0002		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Vanadium	ND	mg/L		0.1		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545
Zinc	0.102	mg/L		0.008		E200.8	04/08/15 16:10 / dck	03/31/15 09:40	ICPMS204-B_150408A	151	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13
Lab ID: H15030394-008
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 18:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	10	mg/L		1		A2540 D	03/30/15 15:27 / SR		L24 (14410200)_150330A	23	TSS150330A
Solids, Volatile Suspended	4	mg/L		1		A2540 E	03/31/15 10:22 / SR		MISC WC_150331A	15	150331A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	96	mg/L		4		A2320 B	04/01/15 10:52 / SR		PHSC_101-H_150401A	36	R105152
Bicarbonate as HCO3	120	mg/L		4		A2320 B	04/01/15 10:52 / SR		PHSC_101-H_150401A	36	R105152
Chloride	34	mg/L		1		E300.0	03/31/15 15:02 / SR		IC102-H_150331A	38	R105153
Sulfate	65	mg/L		1		E300.0	03/31/15 15:02 / SR		IC102-H_150331A	38	R105153
Hardness as CaCO3	156	mg/L		1		A2340 B	03/31/15 11:41 / abb		CALC_150402A	146	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.9	mg/L		0.5		A5310 C	04/02/15 07:05 / eli-c		SUB-C197799	18	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	0.38	mg/L		0.05		E350.1	04/01/15 10:50 / cm		FIA203-HE_150401B	32	R105171
Nitrogen, Nitrate+Nitrite as N	1.33	mg/L		0.02		E353.2	03/31/15 15:25 / cm		FIA203-HE_150331C	92	R105150
Nitrogen, Total	6.1	mg/L	D	0.2		A4500 N-C	04/01/15 14:00 / cm	04/01/15 09:34	FIA203-HE_150401D	21	28562
Phosphorus, Total as P	0.273	mg/L		0.003		E365.1	04/01/15 08:14 / cm	03/31/15 14:02	FIA202-HE_150401A	30	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/13/15 15:39 / dck		ICPMS204-B_150413B	56	R105453
Antimony	ND	mg/L		0.0005		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431
Arsenic	0.006	mg/L		0.001		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431
Barium	0.035	mg/L		0.003		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431
Beryllium	ND	mg/L		0.0008		E200.8	04/13/15 15:39 / dck		ICPMS204-B_150413B	56	R105453
Boron	ND	mg/L		0.1		E200.7	03/31/15 11:41 / sld		ICP2-HE_150331B	37	R105154
Cadmium	0.00010	mg/L		0.00003		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431
Calcium	45	mg/L		1		E200.7	03/31/15 11:41 / sld		ICP2-HE_150331B	37	R105154
Chromium	ND	mg/L		0.01		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431
Cobalt	ND	mg/L		0.01		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431
Copper	0.013	mg/L		0.001		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431
Iron	0.06	mg/L		0.02		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13
Lab ID: H15030394-008
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 18:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431
Magnesium	10	mg/L		1		E200.7	03/31/15 11:41 / sld		ICP2-HE_150331B	37	R105154
Manganese	0.184	mg/L		0.001		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431
Mercury	ND	mg/L		5E-06		E245.1	04/06/15 16:52 / rgk	04/02/15 09:33	HGCV202-H_150406B	32	28572
Molybdenum	ND	mg/L		0.005		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431
Nickel	ND	mg/L		0.002		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431
Potassium	5	mg/L		1		E200.7	03/31/15 11:41 / sld		ICP2-HE_150331B	37	R105154
Selenium	ND	mg/L		0.001		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431
Silver	ND	mg/L		0.0002		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431
Sodium	25	mg/L		1		E200.7	03/31/15 11:41 / sld		ICP2-HE_150331B	37	R105154
Uranium	0.0039	mg/L		0.0002		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431
Vanadium	ND	mg/L		0.1		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431
Zinc	0.040	mg/L		0.008		E200.8	04/09/15 14:00 / dck		ICPMS204-B_150409C	46	R105431
METALS, TOTAL RECOVERABLE											
Aluminum	0.392	mg/L		0.009		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Antimony	ND	mg/L		0.0005		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Arsenic	0.007	mg/L		0.001		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Barium	0.037	mg/L		0.003		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Beryllium	ND	mg/L		0.0008		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Boron	ND	mg/L		0.1		E200.7	04/01/15 17:01 / sld	03/31/15 09:40	ICP2-HE_150401B	66	28545
Cadmium	0.00032	mg/L		0.00003		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Calcium	48	mg/L		1		E200.7	04/01/15 17:01 / sld	03/31/15 09:40	ICP2-HE_150401B	66	28545
Chromium	ND	mg/L		0.01		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Cobalt	ND	mg/L		0.01		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Copper	0.023	mg/L		0.001		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Iron	0.52	mg/L		0.02		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Lead	0.0016	mg/L		0.0003		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Magnesium	11	mg/L		1		E200.7	04/01/15 17:01 / sld	03/31/15 09:40	ICP2-HE_150401B	66	28545
Manganese	0.214	mg/L		0.001		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Mercury	0.000011	mg/L		5E-06		E245.1	04/06/15 16:57 / rgk	04/02/15 09:33	HGCV202-H_150406B	33	28572
Molybdenum	ND	mg/L		0.005		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13
Lab ID: H15030394-008
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 18:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Potassium	5	mg/L		1		E200.7	04/01/15 17:01 / sld	03/31/15 09:40	ICP2-HE_150401B	66	28545
Selenium	ND	mg/L		0.001		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Silver	ND	mg/L		0.0002		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Sodium	25	mg/L		1		E200.7	04/01/15 17:01 / sld	03/31/15 09:40	ICP2-HE_150401B	66	28545
Uranium	0.0040	mg/L		0.0002		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Vanadium	ND	mg/L		0.1		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545
Zinc	0.070	mg/L		0.008		E200.8	04/08/15 16:16 / dck	03/31/15 09:40	ICPMS204-B_150408A	153	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Duplicate 1 (SS-13)
Lab ID: H15030394-009
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 18:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	12	mg/L		1		A2540 D	03/30/15 15:27 / SR		L24 (14410200)_150330A	24	TSS150330A
Solids, Volatile Suspended	4	mg/L		1		A2540 E	03/31/15 10:23 / SR		MISC WC_150331A	16	150331A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	95	mg/L		4		A2320 B	04/01/15 10:58 / SR		PHSC_101-H_150401A	38	R105152
Bicarbonate as HCO3	110	mg/L		4		A2320 B	04/01/15 10:58 / SR		PHSC_101-H_150401A	38	R105152
Chloride	34	mg/L		1		E300.0	03/31/15 15:13 / SR		IC102-H_150331A	39	R105153
Sulfate	66	mg/L		1		E300.0	03/31/15 15:13 / SR		IC102-H_150331A	39	R105153
Hardness as CaCO3	156	mg/L		1		A2340 B	03/31/15 11:44 / abb		CALC_150402A	157	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.9	mg/L		0.5		A5310 C	04/02/15 07:20 / eli-c		SUB-C197799	19	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	0.38	mg/L		0.05		E350.1	04/01/15 10:51 / cm		FIA203-HE_150401B	33	R105171
Nitrogen, Nitrate+Nitrite as N	1.34	mg/L		0.02		E353.2	03/31/15 15:26 / cm		FIA203-HE_150331C	93	R105150
Nitrogen, Total	6.1	mg/L	D	0.2		A4500 N-C	04/01/15 14:01 / cm	04/01/15 09:34	FIA203-HE_150401D	22	28562
Phosphorus, Total as P	0.277	mg/L		0.003		E365.1	04/01/15 08:15 / cm	03/31/15 14:02	FIA202-HE_150401A	31	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/13/15 15:50 / dck		ICPMS204-B_150413B	60	R105453
Antimony	ND	mg/L		0.0005		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431
Arsenic	0.006	mg/L		0.001		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431
Barium	0.034	mg/L		0.003		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431
Beryllium	ND	mg/L		0.0008		E200.8	04/13/15 15:50 / dck		ICPMS204-B_150413B	60	R105453
Boron	ND	mg/L		0.1		E200.7	03/31/15 11:44 / sld		ICP2-HE_150331B	38	R105154
Cadmium	0.00011	mg/L		0.00003		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431
Calcium	45	mg/L		1		E200.7	03/31/15 11:44 / sld		ICP2-HE_150331B	38	R105154
Chromium	ND	mg/L		0.01		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431
Cobalt	ND	mg/L		0.01		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431
Copper	0.013	mg/L		0.001		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431
Iron	0.06	mg/L		0.02		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Duplicate 1 (SS-13)
Lab ID: H15030394-009
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 18:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431
Magnesium	10	mg/L		1		E200.7	03/31/15 11:44 / sld		ICP2-HE_150331B	38	R105154
Manganese	0.182	mg/L		0.001		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431
Mercury	ND	mg/L		5E-06		E245.1	04/06/15 17:01 / rgk	04/02/15 09:33	HGCV202-H_150406B	34	28572
Molybdenum	ND	mg/L		0.005		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431
Nickel	ND	mg/L		0.002		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431
Potassium	5	mg/L		1		E200.7	03/31/15 11:44 / sld		ICP2-HE_150331B	38	R105154
Selenium	ND	mg/L		0.001		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431
Silver	ND	mg/L		0.0002		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431
Sodium	25	mg/L		1		E200.7	03/31/15 11:44 / sld		ICP2-HE_150331B	38	R105154
Uranium	0.0039	mg/L		0.0002		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431
Vanadium	ND	mg/L		0.1		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431
Zinc	0.038	mg/L		0.008		E200.8	04/09/15 14:03 / dck		ICPMS204-B_150409C	47	R105431
METALS, TOTAL RECOVERABLE											
Aluminum	0.372	mg/L		0.009		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Antimony	ND	mg/L		0.0005		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Arsenic	0.007	mg/L		0.001		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Barium	0.037	mg/L		0.003		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Beryllium	ND	mg/L		0.0008		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Boron	ND	mg/L		0.1		E200.7	04/01/15 17:05 / sld	03/31/15 09:40	ICP2-HE_150401B	67	28545
Cadmium	0.00032	mg/L		0.00003		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Calcium	48	mg/L		1		E200.7	04/01/15 17:05 / sld	03/31/15 09:40	ICP2-HE_150401B	67	28545
Chromium	ND	mg/L		0.01		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Cobalt	ND	mg/L		0.01		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Copper	0.022	mg/L		0.001		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Iron	0.50	mg/L		0.02		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Lead	0.0015	mg/L		0.0003		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Magnesium	11	mg/L		1		E200.7	04/01/15 17:05 / sld	03/31/15 09:40	ICP2-HE_150401B	67	28545
Manganese	0.215	mg/L		0.001		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Mercury	8.2E-06	mg/L		5E-06		E245.1	04/06/15 17:05 / rgk	04/02/15 09:33	HGCV202-H_150406B	35	28572
Molybdenum	ND	mg/L		0.005		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Duplicate 1 (SS-13)
Lab ID: H15030394-009
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 18:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Potassium	5	mg/L		1		E200.7	04/01/15 17:05 / sld	03/31/15 09:40	ICP2-HE_150401B	67	28545
Selenium	ND	mg/L		0.001		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Silver	ND	mg/L		0.0002		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Sodium	25	mg/L		1		E200.7	04/01/15 17:05 / sld	03/31/15 09:40	ICP2-HE_150401B	67	28545
Uranium	0.0041	mg/L		0.0002		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Vanadium	ND	mg/L		0.1		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545
Zinc	0.072	mg/L		0.008		E200.8	04/08/15 16:21 / dck	03/31/15 09:40	ICPMS204-B_150408A	155	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank 1
Lab ID: H15030394-010
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 18:00
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	ND	mg/L		1		A2540 D	03/31/15 15:20 / SR		-124 (14410200)_150331A	5	TSS150331A
Solids, Volatile Suspended	1	mg/L		1		A2540 E	04/01/15 09:19 / SR		MISC WC_150401A	2	150401A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	ND	mg/L		4		A2320 B	04/01/15 11:04 / SR		PHSC_101-H_150401A	40	R105152
Bicarbonate as HCO3	ND	mg/L		4		A2320 B	04/01/15 11:04 / SR		PHSC_101-H_150401A	40	R105152
Chloride	ND	mg/L		1		E300.0	03/31/15 15:24 / SR		IC102-H_150331A	40	R105153
Sulfate	ND	mg/L		1		E300.0	03/31/15 15:24 / SR		IC102-H_150331A	40	R105153
Hardness as CaCO3	ND	mg/L		1		A2340 B	04/09/15 13:26 / sld		WATERCALC_150409A	1	R105382
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	ND	mg/L		0.5		A5310 C	04/02/15 07:36 / eli-c		SUB-C197799	20	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	04/01/15 10:52 / cm		FIA203-HE_150401B	34	R105171
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.02		E353.2	03/31/15 15:27 / cm		FIA203-HE_150331C	94	R105150
Nitrogen, Total	ND	mg/L		0.05		A4500 N-C	04/01/15 08:20 / cm	03/31/15 09:25	FIA203-HE_150401A	31	28542
Phosphorus, Total as P	ND	mg/L		0.003		E365.1	04/01/15 08:16 / cm	03/31/15 14:02	FIA202-HE_150401A	32	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/13/15 15:52 / dck		ICPMS204-B_150413B	61	R105453
Antimony	ND	mg/L		0.0005		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431
Arsenic	ND	mg/L		0.001		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431
Barium	ND	mg/L		0.003		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431
Beryllium	ND	mg/L		0.0008		E200.8	04/13/15 15:52 / dck		ICPMS204-B_150413B	61	R105453
Boron	ND	mg/L		0.1		E200.7	03/31/15 11:48 / sld		ICP2-HE_150331B	39	R105154
Cadmium	ND	mg/L		0.00003		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431
Calcium	ND	mg/L		1		E200.7	03/31/15 11:48 / sld		ICP2-HE_150331B	39	R105154
Chromium	ND	mg/L		0.01		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431
Cobalt	ND	mg/L		0.01		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431
Copper	ND	mg/L		0.001		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431
Iron	ND	mg/L		0.02		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank 1
Lab ID: H15030394-010
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 18:00
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431
Magnesium	ND	mg/L		1		E200.7	03/31/15 11:48 / sld		ICP2-HE_150331B	39	R105154
Manganese	ND	mg/L		0.001		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431
Mercury	ND	mg/L		5E-06		E245.1	04/06/15 17:09 / rgk	04/02/15 09:33	HGCV202-H_150406B	36	28572
Molybdenum	ND	mg/L		0.005		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431
Nickel	ND	mg/L		0.002		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431
Potassium	ND	mg/L		1		E200.7	03/31/15 11:48 / sld		ICP2-HE_150331B	39	R105154
Selenium	ND	mg/L		0.001		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431
Silver	ND	mg/L		0.0002		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431
Sodium	ND	mg/L		1		E200.7	03/31/15 11:48 / sld		ICP2-HE_150331B	39	R105154
Uranium	ND	mg/L		0.0002		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431
Vanadium	ND	mg/L		0.1		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431
Zinc	ND	mg/L		0.008		E200.8	04/09/15 14:05 / dck		ICPMS204-B_150409C	48	R105431
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.009		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Antimony	ND	mg/L		0.0005		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Arsenic	ND	mg/L		0.001		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Barium	ND	mg/L		0.003		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Beryllium	ND	mg/L		0.0008		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Boron	ND	mg/L		0.1		E200.7	04/01/15 17:08 / sld	03/31/15 09:40	ICP2-HE_150401B	68	28545
Cadmium	ND	mg/L		0.00003		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Calcium	ND	mg/L		1		E200.7	04/01/15 17:08 / sld	03/31/15 09:40	ICP2-HE_150401B	68	28545
Chromium	ND	mg/L		0.01		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Cobalt	ND	mg/L		0.01		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Copper	ND	mg/L		0.001		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Iron	ND	mg/L		0.02		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Lead	ND	mg/L		0.0003		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Magnesium	ND	mg/L		1		E200.7	04/01/15 17:08 / sld	03/31/15 09:40	ICP2-HE_150401B	68	28545
Manganese	ND	mg/L		0.001		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Mercury	ND	mg/L		5E-06		E245.1	04/06/15 17:14 / rgk	04/02/15 09:33	HGCV202-H_150406B	37	28572
Molybdenum	ND	mg/L		0.005		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank 1
Lab ID: H15030394-010
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 18:00
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Potassium	ND	mg/L		1		E200.7	04/01/15 17:08 / sld	03/31/15 09:40	ICP2-HE_150401B	68	28545
Selenium	ND	mg/L		0.001		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Silver	ND	mg/L		0.0002		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Sodium	ND	mg/L		1		E200.7	04/01/15 17:08 / sld	03/31/15 09:40	ICP2-HE_150401B	68	28545
Uranium	ND	mg/L		0.0002		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Vanadium	ND	mg/L		0.1		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545
Zinc	ND	mg/L		0.008		E200.8	04/08/15 16:34 / dck	03/31/15 09:40	ICPMS204-B_150408A	160	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14
Lab ID: H15030394-011
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 16:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	12	mg/L	D	2		A2540 D	03/31/15 15:19 / SR		-124 (14410200)_150331A	3	TSS150331A
Solids, Volatile Suspended	6	mg/L		1		A2540 E	04/01/15 09:20 / SR		MISC WC_150401A	3	150401A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	93	mg/L		4		A2320 B	04/01/15 11:09 / SR		PHSC_101-H_150401A	42	R105152
Bicarbonate as HCO3	110	mg/L		4		A2320 B	04/01/15 11:09 / SR		PHSC_101-H_150401A	42	R105152
Chloride	34	mg/L		1		E300.0	03/31/15 15:35 / SR		IC102-H_150331A	41	R105153
Sulfate	67	mg/L		1		E300.0	03/31/15 15:35 / SR		IC102-H_150331A	41	R105153
Hardness as CaCO3	157	mg/L		1		A2340 B	03/31/15 11:52 / abb		CALC_150402A	179	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.6	mg/L		0.5		A5310 C	04/02/15 07:56 / eli-c		SUB-C197799	21	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	0.22	mg/L		0.05		E350.1	04/01/15 10:58 / cm		FIA203-HE_150401B	39	R105171
Nitrogen, Nitrate+Nitrite as N	1.22	mg/L		0.02		E353.2	03/31/15 15:29 / cm		FIA203-HE_150331C	95	R105150
Nitrogen, Total	5.1	mg/L	D	0.2		A4500 N-C	04/01/15 14:02 / cm	04/01/15 09:34	FIA203-HE_150401D	23	28562
Phosphorus, Total as P	0.269	mg/L		0.003		E365.1	04/01/15 08:19 / cm	03/31/15 14:02	FIA202-HE_150401A	35	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/13/15 15:55 / dck		ICPMS204-B_150413B	62	R105453
Antimony	ND	mg/L		0.0005		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431
Arsenic	0.006	mg/L		0.001		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431
Barium	0.032	mg/L		0.003		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431
Beryllium	ND	mg/L		0.0008		E200.8	04/13/15 15:55 / dck		ICPMS204-B_150413B	62	R105453
Boron	ND	mg/L		0.1		E200.7	03/31/15 11:52 / sld		ICP2-HE_150331B	40	R105154
Cadmium	0.00009	mg/L		0.00003		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431
Calcium	46	mg/L		1		E200.7	03/31/15 11:52 / sld		ICP2-HE_150331B	40	R105154
Chromium	ND	mg/L		0.01		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431
Cobalt	ND	mg/L		0.01		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431
Copper	0.012	mg/L		0.001		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431
Iron	0.05	mg/L		0.02		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14
Lab ID: H15030394-011
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 16:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431
Magnesium	10	mg/L		1		E200.7	03/31/15 11:52 / sld		ICP2-HE_150331B	40	R105154
Manganese	0.183	mg/L		0.001		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431
Mercury	ND	mg/L		5E-06		E245.1	04/06/15 17:18 / rgk	04/02/15 09:33	HGCV202-H_150406B	38	28572
Molybdenum	ND	mg/L		0.005		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431
Nickel	ND	mg/L		0.002		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431
Potassium	5	mg/L		1		E200.7	03/31/15 11:52 / sld		ICP2-HE_150331B	40	R105154
Selenium	ND	mg/L		0.001		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431
Silver	ND	mg/L		0.0002		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431
Sodium	24	mg/L		1		E200.7	03/31/15 11:52 / sld		ICP2-HE_150331B	40	R105154
Uranium	0.0039	mg/L		0.0002		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431
Vanadium	ND	mg/L		0.1		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431
Zinc	0.027	mg/L		0.008		E200.8	04/09/15 14:22 / dck		ICPMS204-B_150409C	54	R105431
METALS, TOTAL RECOVERABLE											
Aluminum	0.348	mg/L		0.009		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Antimony	ND	mg/L		0.0005		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Arsenic	0.007	mg/L		0.001		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Barium	0.036	mg/L		0.003		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Beryllium	ND	mg/L		0.0008		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Boron	ND	mg/L		0.1		E200.7	04/01/15 17:12 / sld	03/31/15 09:40	ICP2-HE_150401B	69	28545
Cadmium	0.00031	mg/L		0.00003		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Calcium	49	mg/L		1		E200.7	04/01/15 17:12 / sld	03/31/15 09:40	ICP2-HE_150401B	69	28545
Chromium	ND	mg/L		0.01		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Cobalt	ND	mg/L		0.01		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Copper	0.022	mg/L		0.001		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Iron	0.50	mg/L		0.02		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Lead	0.0015	mg/L		0.0003		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Magnesium	11	mg/L		1		E200.7	04/01/15 17:12 / sld	03/31/15 09:40	ICP2-HE_150401B	69	28545
Manganese	0.217	mg/L		0.001		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Mercury	9.6E-06	mg/L		5E-06		E245.1	04/06/15 17:22 / rgk	04/02/15 09:33	HGCV202-H_150406B	39	28572
Molybdenum	ND	mg/L		0.005		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14
Lab ID: H15030394-011
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 16:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Potassium	5	mg/L		1		E200.7	04/01/15 17:12 / sld	03/31/15 09:40	ICP2-HE_150401B	69	28545
Selenium	ND	mg/L		0.001		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Silver	ND	mg/L		0.0002		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Sodium	25	mg/L		1		E200.7	04/01/15 17:12 / sld	03/31/15 09:40	ICP2-HE_150401B	69	28545
Uranium	0.0041	mg/L		0.0002		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Vanadium	ND	mg/L		0.1		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545
Zinc	0.062	mg/L		0.008		E200.8	04/08/15 16:47 / dck	03/31/15 09:40	ICPMS204-B_150408A	165	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A
Lab ID: H15030394-012
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 14:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	15	mg/L		1		A2540 D	03/31/15 15:20 / SR		-124 (14410200)_150331A	6	TSS150331A
Solids, Volatile Suspended	6	mg/L		1		A2540 E	04/01/15 09:21 / SR		MISC WC_150401A	5	150401A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	94	mg/L		4		A2320 B	04/01/15 11:15 / SR		PHSC_101-H_150401A	44	R105152
Bicarbonate as HCO3	110	mg/L		4		A2320 B	04/01/15 11:15 / SR		PHSC_101-H_150401A	44	R105152
Chloride	36	mg/L		1		E300.0	03/31/15 15:47 / SR		IC102-H_150331A	42	R105153
Sulfate	67	mg/L		1		E300.0	03/31/15 15:47 / SR		IC102-H_150331A	42	R105153
Hardness as CaCO3	157	mg/L		1		A2340 B	03/31/15 11:56 / abb		CALC_150402A	190	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	5.0	mg/L		0.5		A5310 C	04/02/15 08:11 / eli-c		SUB-C197799	22	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	0.47	mg/L		0.05		E350.1	04/01/15 11:01 / cm		FIA203-HE_150401B	42	R105171
Nitrogen, Nitrate+Nitrite as N	1.20	mg/L		0.02		E353.2	03/31/15 15:30 / cm		FIA203-HE_150331C	96	R105150
Nitrogen, Total	6.0	mg/L	D	0.2		A4500 N-C	04/01/15 14:03 / cm	04/01/15 09:34	FIA203-HE_150401D	24	28562
Phosphorus, Total as P	0.320	mg/L		0.003		E365.1	04/01/15 08:20 / cm	03/31/15 14:02	FIA202-HE_150401A	36	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/14/15 10:33 / dck		ICPMS204-B_150414A	19	R105478
Antimony	ND	mg/L		0.0005		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431
Arsenic	0.006	mg/L		0.001		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431
Barium	0.033	mg/L		0.003		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431
Beryllium	ND	mg/L		0.0008		E200.8	04/13/15 16:05 / dck		ICPMS204-B_150413B	66	R105453
Boron	ND	mg/L		0.1		E200.7	03/31/15 11:56 / sld		ICP2-HE_150331B	41	R105154
Cadmium	0.00010	mg/L		0.00003		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431
Calcium	46	mg/L		1		E200.7	03/31/15 11:56 / sld		ICP2-HE_150331B	41	R105154
Chromium	ND	mg/L		0.01		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431
Cobalt	ND	mg/L		0.01		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431
Copper	0.013	mg/L		0.001		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431
Iron	0.05	mg/L		0.02		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A
Lab ID: H15030394-012
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 14:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431
Magnesium	10	mg/L		1		E200.7	03/31/15 11:56 / sld		ICP2-HE_150331B	41	R105154
Manganese	0.182	mg/L		0.001		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431
Mercury	ND	mg/L		5E-06		E245.1	04/07/15 11:51 / rgk	04/06/15 11:32	HGCV202-H_150407A	25	28595
Molybdenum	ND	mg/L		0.005		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431
Nickel	ND	mg/L		0.002		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431
Potassium	5	mg/L		1		E200.7	03/31/15 11:56 / sld		ICP2-HE_150331B	41	R105154
Selenium	ND	mg/L		0.001		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431
Silver	ND	mg/L		0.0002		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431
Sodium	26	mg/L		1		E200.7	03/31/15 11:56 / sld		ICP2-HE_150331B	41	R105154
Uranium	0.0039	mg/L		0.0002		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431
Vanadium	ND	mg/L		0.1		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431
Zinc	0.026	mg/L		0.008		E200.8	04/09/15 14:33 / dck		ICPMS204-B_150409C	58	R105431
METALS, TOTAL RECOVERABLE											
Aluminum	0.432	mg/L		0.009		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Antimony	ND	mg/L		0.0005		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Arsenic	0.008	mg/L		0.001		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Barium	0.037	mg/L		0.003		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Beryllium	ND	mg/L		0.0008		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Boron	ND	mg/L		0.1		E200.7	04/01/15 17:35 / sld	03/31/15 09:40	ICP2-HE_150401B	75	28545
Cadmium	0.00039	mg/L		0.00003		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Calcium	49	mg/L		1		E200.7	04/01/15 17:35 / sld	03/31/15 09:40	ICP2-HE_150401B	75	28545
Chromium	ND	mg/L		0.01		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Cobalt	ND	mg/L		0.01		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Copper	0.025	mg/L		0.001		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Iron	0.57	mg/L		0.02		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Lead	0.0023	mg/L		0.0003		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Magnesium	11	mg/L		1		E200.7	04/01/15 17:35 / sld	03/31/15 09:40	ICP2-HE_150401B	75	28545
Manganese	0.234	mg/L		0.001		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Mercury	9.8E-06	mg/L		5E-06		E245.1	04/07/15 12:03 / rgk	04/06/15 11:32	HGCV202-H_150407A	28	28595
Molybdenum	ND	mg/L		0.005		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A
Lab ID: H15030394-012
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 14:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Potassium	5	mg/L		1		E200.7	04/01/15 17:35 / sld	03/31/15 09:40	ICP2-HE_150401B	75	28545
Selenium	ND	mg/L		0.001		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Silver	ND	mg/L		0.0002		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Sodium	25	mg/L		1		E200.7	04/01/15 17:35 / sld	03/31/15 09:40	ICP2-HE_150401B	75	28545
Uranium	0.0042	mg/L		0.0002		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Vanadium	ND	mg/L		0.1		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545
Zinc	0.083	mg/L		0.008		E200.8	04/08/15 17:02 / dck	03/31/15 09:40	ICPMS204-B_150408A	171	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B
Lab ID: H15030394-013
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 13:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	11	mg/L		1		A2540 D	03/31/15 15:21 / SR		-124 (14410200)_150331A	7	TSS150331A
Solids, Volatile Suspended	5	mg/L		1		A2540 E	04/01/15 09:22 / SR		MISC WC_150401A	6	150401A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	94	mg/L		4		A2320 B	04/01/15 11:21 / SR		PHSC_101-H_150401A	46	R105152
Bicarbonate as HCO3	110	mg/L		4		A2320 B	04/01/15 11:21 / SR		PHSC_101-H_150401A	46	R105152
Chloride	25	mg/L		1		E300.0	03/31/15 15:58 / SR		IC102-H_150331A	43	R105153
Sulfate	53	mg/L		1		E300.0	03/31/15 15:58 / SR		IC102-H_150331A	43	R105153
Hardness as CaCO3	140	mg/L		1		A2340 B	03/31/15 12:00 / abb		CALC_150402A	201	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.5	mg/L		0.5		A5310 C	04/02/15 08:32 / eli-c		SUB-C197799	23	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	0.45	mg/L		0.05		E350.1	04/01/15 11:03 / cm		FIA203-HE_150401B	43	R105171
Nitrogen, Nitrate+Nitrite as N	0.87	mg/L		0.02		E353.2	03/31/15 15:31 / cm		FIA203-HE_150331C	97	R105150
Nitrogen, Total	1.88	mg/L		0.05		A4500 N-C	04/01/15 08:26 / cm	03/31/15 09:25	FIA203-HE_150401A	36	28542
Phosphorus, Total as P	0.245	mg/L		0.003		E365.1	04/01/15 08:21 / cm	03/31/15 14:02	FIA202-HE_150401A	37	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/14/15 10:43 / dck		ICPMS204-B_150414A	23	R105478
Antimony	ND	mg/L		0.0005		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431
Arsenic	0.006	mg/L		0.001		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431
Barium	0.032	mg/L		0.003		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431
Beryllium	ND	mg/L		0.0008		E200.8	04/13/15 16:07 / dck		ICPMS204-B_150413B	67	R105453
Boron	ND	mg/L		0.1		E200.7	03/31/15 12:00 / sld		ICP2-HE_150331B	42	R105154
Cadmium	0.00008	mg/L		0.00003		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431
Calcium	41	mg/L		1		E200.7	03/31/15 12:00 / sld		ICP2-HE_150331B	42	R105154
Chromium	ND	mg/L		0.01		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431
Cobalt	ND	mg/L		0.01		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431
Copper	0.009	mg/L		0.001		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431
Iron	0.04	mg/L		0.02		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B
Lab ID: H15030394-013
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 13:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431
Magnesium	9	mg/L		1		E200.7	03/31/15 12:00 / sld		ICP2-HE_150331B	42	R105154
Manganese	0.152	mg/L		0.001		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431
Mercury	ND	mg/L		5E-06		E245.1	04/07/15 12:06 / rgk	04/06/15 11:32	HGCV202-H_150407A	29	28595
Molybdenum	ND	mg/L		0.005		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431
Nickel	ND	mg/L		0.002		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431
Potassium	4	mg/L		1		E200.7	03/31/15 12:00 / sld		ICP2-HE_150331B	42	R105154
Selenium	ND	mg/L		0.001		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431
Silver	ND	mg/L		0.0002		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431
Sodium	20	mg/L		1		E200.7	03/31/15 12:00 / sld		ICP2-HE_150331B	42	R105154
Uranium	0.0030	mg/L		0.0002		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431
Vanadium	ND	mg/L		0.1		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431
Zinc	0.023	mg/L		0.008		E200.8	04/09/15 14:35 / dck		ICPMS204-B_150409C	59	R105431
METALS, TOTAL RECOVERABLE											
Aluminum	0.367	mg/L		0.009		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Antimony	ND	mg/L		0.0005		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Arsenic	0.007	mg/L		0.001		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Barium	0.033	mg/L		0.003		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Beryllium	ND	mg/L		0.0008		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Boron	ND	mg/L		0.1		E200.7	04/01/15 17:38 / sld	03/31/15 09:40	ICP2-HE_150401B	76	28545
Cadmium	0.00026	mg/L		0.00003		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Calcium	44	mg/L		1		E200.7	04/01/15 17:38 / sld	03/31/15 09:40	ICP2-HE_150401B	76	28545
Chromium	ND	mg/L		0.01		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Cobalt	ND	mg/L		0.01		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Copper	0.019	mg/L		0.001		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Iron	0.45	mg/L		0.02		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Lead	0.0017	mg/L		0.0003		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Magnesium	9	mg/L		1		E200.7	04/01/15 17:38 / sld	03/31/15 09:40	ICP2-HE_150401B	76	28545
Manganese	0.180	mg/L		0.001		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Mercury	5.5E-06	mg/L		5E-06		E245.1	04/07/15 12:10 / rgk	04/06/15 11:32	HGCV202-H_150407A	30	28595
Molybdenum	ND	mg/L		0.005		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B
Lab ID: H15030394-013
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 13:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Potassium	4	mg/L		1		E200.7	04/01/15 17:38 / sld	03/31/15 09:40	ICP2-HE_150401B	76	28545
Selenium	ND	mg/L		0.001		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Silver	ND	mg/L		0.0002		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Sodium	19	mg/L		1		E200.7	04/01/15 17:38 / sld	03/31/15 09:40	ICP2-HE_150401B	76	28545
Uranium	0.0030	mg/L		0.0002		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Vanadium	ND	mg/L		0.1		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545
Zinc	0.064	mg/L		0.008		E200.8	04/08/15 17:15 / dck	03/31/15 09:40	ICPMS204-B_150408A	176	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B
Lab ID: H15030394-014
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 11:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	8	mg/L		1		A2540 D	03/31/15 15:21 / SR		-124 (14410200)_150331A	8	TSS150331A
Solids, Volatile Suspended	3	mg/L		1		A2540 E	04/01/15 09:23 / SR		MISC WC_150401A	7	150401A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	93	mg/L		4		A2320 B	04/01/15 11:27 / SR		PHSC_101-H_150401A	48	R105152
Bicarbonate as HCO3	110	mg/L		4		A2320 B	04/01/15 11:27 / SR		PHSC_101-H_150401A	48	R105152
Chloride	25	mg/L		1		E300.0	03/31/15 17:04 / SR		IC102-H_150331A	49	R105153
Sulfate	53	mg/L		1		E300.0	03/31/15 17:04 / SR		IC102-H_150331A	49	R105153
Hardness as CaCO3	139	mg/L		1		A2340 B	03/31/15 12:11 / abb		CALC_150402A	212	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.5	mg/L		0.5		A5310 C	04/02/15 08:47 / eli-c		SUB-C197799	24	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	0.45	mg/L		0.05		E350.1	04/01/15 11:04 / cm		FIA203-HE_150401B	44	R105171
Nitrogen, Nitrate+Nitrite as N	0.94	mg/L		0.02		E353.2	03/31/15 15:32 / cm		FIA203-HE_150331C	98	R105150
Nitrogen, Total	1.94	mg/L		0.05		A4500 N-C	04/01/15 08:27 / cm	03/31/15 09:25	FIA203-HE_150401A	37	28542
Phosphorus, Total as P	0.237	mg/L		0.003		E365.1	04/01/15 08:22 / cm	03/31/15 14:02	FIA202-HE_150401A	38	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/14/15 10:46 / dck		ICPMS204-B_150414A	24	R105478
Antimony	ND	mg/L		0.0005		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431
Arsenic	0.006	mg/L		0.001		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431
Barium	0.034	mg/L		0.003		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431
Beryllium	ND	mg/L		0.0008		E200.8	04/13/15 16:10 / dck		ICPMS204-B_150413B	68	R105453
Boron	ND	mg/L		0.1		E200.7	03/31/15 12:11 / sld		ICP2-HE_150331B	45	R105154
Cadmium	0.00013	mg/L		0.00003		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431
Calcium	41	mg/L		1		E200.7	03/31/15 12:11 / sld		ICP2-HE_150331B	45	R105154
Chromium	ND	mg/L		0.01		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431
Cobalt	ND	mg/L		0.01		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431
Copper	0.010	mg/L		0.001		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431
Iron	0.04	mg/L		0.02		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B
Lab ID: H15030394-014
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 11:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431
Magnesium	9	mg/L		1		E200.7	03/31/15 12:11 / sld		ICP2-HE_150331B	45	R105154
Manganese	0.170	mg/L		0.001		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431
Mercury	ND	mg/L		5E-06		E245.1	04/07/15 12:14 / rgk	04/06/15 11:32	HGCV202-H_150407A	31	28595
Molybdenum	ND	mg/L		0.005		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431
Nickel	ND	mg/L		0.002		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431
Potassium	4	mg/L		1		E200.7	03/31/15 12:11 / sld		ICP2-HE_150331B	45	R105154
Selenium	ND	mg/L		0.001		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431
Silver	ND	mg/L		0.0002		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431
Sodium	19	mg/L		1		E200.7	03/31/15 12:11 / sld		ICP2-HE_150331B	45	R105154
Uranium	0.0030	mg/L		0.0002		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431
Vanadium	ND	mg/L		0.1		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431
Zinc	0.052	mg/L		0.008		E200.8	04/09/15 14:38 / dck		ICPMS204-B_150409C	60	R105431
METALS, TOTAL RECOVERABLE											
Aluminum	0.280	mg/L		0.009		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Antimony	ND	mg/L		0.0005		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Arsenic	0.007	mg/L		0.001		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Barium	0.033	mg/L		0.003		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Beryllium	ND	mg/L		0.0008		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Boron	ND	mg/L		0.1		E200.7	04/01/15 17:42 / sld	03/31/15 09:40	ICP2-HE_150401B	77	28545
Cadmium	0.00032	mg/L		0.00003		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Calcium	44	mg/L		1		E200.7	04/01/15 17:42 / sld	03/31/15 09:40	ICP2-HE_150401B	77	28545
Chromium	ND	mg/L		0.01		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Cobalt	ND	mg/L		0.01		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Copper	0.018	mg/L		0.001		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Iron	0.36	mg/L		0.02		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Lead	0.0011	mg/L		0.0003		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Magnesium	9	mg/L		1		E200.7	04/01/15 17:42 / sld	03/31/15 09:40	ICP2-HE_150401B	77	28545
Manganese	0.184	mg/L		0.001		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Mercury	5.2E-06	mg/L		5E-06		E245.1	04/07/15 12:18 / rgk	04/06/15 11:32	HGCV202-H_150407A	32	28595
Molybdenum	ND	mg/L		0.005		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B
Lab ID: H15030394-014
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 11:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Potassium	4	mg/L		1		E200.7	04/01/15 17:42 / sld	03/31/15 09:40	ICP2-HE_150401B	77	28545
Selenium	ND	mg/L		0.001		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Silver	ND	mg/L		0.0002		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Sodium	19	mg/L		1		E200.7	04/01/15 17:42 / sld	03/31/15 09:40	ICP2-HE_150401B	77	28545
Uranium	0.0030	mg/L		0.0002		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Vanadium	ND	mg/L		0.1		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545
Zinc	0.080	mg/L		0.008		E200.8	04/08/15 17:20 / dck	03/31/15 09:40	ICPMS204-B_150408A	178	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D
Lab ID: H15030394-015
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 10:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	11	mg/L		1		A2540 D	03/31/15 15:21 / SR		-124 (14410200)_150331A	9	TSS150331A
Solids, Volatile Suspended	4	mg/L		1		A2540 E	04/01/15 09:24 / SR		MISC WC_150401A	8	150401A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	92	mg/L		4		A2320 B	04/01/15 11:33 / SR		PHSC_101-H_150401A	50	R105152
Bicarbonate as HCO3	110	mg/L		4		A2320 B	04/01/15 11:33 / SR		PHSC_101-H_150401A	50	R105152
Chloride	25	mg/L		1		E300.0	03/31/15 17:49 / SR		IC102-H_150331A	53	R105153
Sulfate	57	mg/L		1		E300.0	03/31/15 17:49 / SR		IC102-H_150331A	53	R105153
Hardness as CaCO3	142	mg/L		1		A2340 B	03/31/15 12:15 / abb		CALC_150402A	223	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.6	mg/L		0.5		A5310 C	04/02/15 10:08 / eli-c		SUB-C197799	26	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	0.22	mg/L		0.05		E350.1	04/01/15 11:05 / cm		FIA203-HE_150401B	45	R105171
Nitrogen, Nitrate+Nitrite as N	1.16	mg/L		0.02		E353.2	03/31/15 15:33 / cm		FIA203-HE_150331C	99	R105150
Nitrogen, Total	2.00	mg/L		0.05		A4500 N-C	04/01/15 08:28 / cm		FIA203-HE_150401A	38	R105159
Phosphorus, Total as P	0.205	mg/L		0.003		E365.1	04/01/15 08:23 / cm	03/31/15 14:02	FIA202-HE_150401A	39	28547
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/14/15 11:19 / dck		ICPMS204-B_150414A	36	R105478
Antimony	ND	mg/L		0.0005		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431
Arsenic	0.006	mg/L		0.001		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431
Barium	0.033	mg/L		0.003		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431
Beryllium	ND	mg/L		0.0008		E200.8	04/13/15 16:12 / dck		ICPMS204-B_150413B	69	R105453
Boron	ND	mg/L		0.1		E200.7	03/31/15 12:15 / sld		ICP2-HE_150331B	46	R105154
Cadmium	0.00022	mg/L		0.00003		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431
Calcium	42	mg/L		1		E200.7	03/31/15 12:15 / sld		ICP2-HE_150331B	46	R105154
Chromium	ND	mg/L		0.01		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431
Cobalt	ND	mg/L		0.01		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431
Copper	0.012	mg/L		0.001		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431
Iron	0.04	mg/L		0.02		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D
Lab ID: H15030394-015
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 10:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431
Magnesium	9	mg/L		1		E200.7	03/31/15 12:15 / sld		ICP2-HE_150331B	46	R105154
Manganese	0.147	mg/L		0.001		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431
Mercury	ND	mg/L		5E-06		E245.1	04/07/15 12:22 / rgk	04/06/15 11:32	HGCV202-H_150407A	33	28595
Molybdenum	ND	mg/L		0.005		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431
Nickel	ND	mg/L		0.002		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431
Potassium	4	mg/L		1		E200.7	03/31/15 12:15 / sld		ICP2-HE_150331B	46	R105154
Selenium	ND	mg/L		0.001		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431
Silver	ND	mg/L		0.0002		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431
Sodium	21	mg/L		1		E200.7	03/31/15 12:15 / sld		ICP2-HE_150331B	46	R105154
Uranium	0.0029	mg/L		0.0002		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431
Vanadium	ND	mg/L		0.1		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431
Zinc	0.074	mg/L		0.008		E200.8	04/09/15 14:41 / dck		ICPMS204-B_150409C	61	R105431
METALS, TOTAL RECOVERABLE											
Aluminum	0.326	mg/L		0.009		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Antimony	ND	mg/L		0.0005		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Arsenic	0.006	mg/L		0.001		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Barium	0.034	mg/L		0.003		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Beryllium	ND	mg/L		0.0008		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Boron	ND	mg/L		0.1		E200.7	04/01/15 17:46 / sld	03/31/15 09:40	ICP2-HE_150401B	78	28545
Cadmium	0.00033	mg/L		0.00003		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Calcium	45	mg/L		1		E200.7	04/01/15 17:46 / sld	03/31/15 09:40	ICP2-HE_150401B	78	28545
Chromium	ND	mg/L		0.01		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Cobalt	ND	mg/L		0.01		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Copper	0.021	mg/L		0.001		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Iron	0.42	mg/L		0.02		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Lead	0.0016	mg/L		0.0003		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Magnesium	10	mg/L		1		E200.7	04/01/15 17:46 / sld	03/31/15 09:40	ICP2-HE_150401B	78	28545
Manganese	0.175	mg/L		0.001		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Mercury	0.000013	mg/L		5E-06		E245.1	04/07/15 12:25 / rgk	04/06/15 11:32	HGCV202-H_150407A	34	28595
Molybdenum	ND	mg/L		0.005		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D
Lab ID: H15030394-015
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 10:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Potassium	4	mg/L		1		E200.7	04/01/15 17:46 / sld	03/31/15 09:40	ICP2-HE_150401B	78	28545
Selenium	ND	mg/L		0.001		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Silver	ND	mg/L		0.0002		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Sodium	20	mg/L		1		E200.7	04/01/15 17:46 / sld	03/31/15 09:40	ICP2-HE_150401B	78	28545
Uranium	0.0029	mg/L		0.0002		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Vanadium	ND	mg/L		0.1		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545
Zinc	0.105	mg/L		0.008		E200.8	04/08/15 17:25 / dck	03/31/15 09:40	ICPMS204-B_150408A	180	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19
Lab ID: H15030394-016
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 09:00
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	11	mg/L		1		A2540 D	03/31/15 15:21 / SR		L24 (14410200)_150331A	10	TSS150331A
Solids, Volatile Suspended	4	mg/L		1		A2540 E	04/01/15 09:24 / SR		MISC WC_150401A	9	150401A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	93	mg/L		4		A2320 B	04/01/15 12:04 / SR		PHSC_101-H_150401A	57	R105152
Bicarbonate as HCO3	110	mg/L		4		A2320 B	04/01/15 12:04 / SR		PHSC_101-H_150401A	57	R105152
Chloride	25	mg/L		1		E300.0	03/31/15 18:00 / SR		IC102-H_150331A	54	R105153
Sulfate	60	mg/L		1		E300.0	03/31/15 18:00 / SR		IC102-H_150331A	54	R105153
Hardness as CaCO3	145	mg/L		1		A2340 B	03/31/15 12:18 / abb		CALC_150402A	234	R105187
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.6	mg/L		0.5		A5310 C	04/02/15 11:05 / eli-c		SUB-C197799	29	C_R197799
NUTRIENTS											
Nitrogen, Ammonia as N	0.17	mg/L		0.05		E350.1	04/01/15 11:06 / cm		FIA203-HE_150401B	46	R105171
Nitrogen, Nitrate+Nitrite as N	1.20	mg/L		0.02		E353.2	03/31/15 15:35 / cm		FIA203-HE_150331C	100	R105150
Nitrogen, Total	1.86	mg/L	D	0.06		A4500 N-C	04/03/15 10:31 / cm	04/03/15 09:17	FIA203-HE_150403A	13	28587
Phosphorus, Total as P	0.194	mg/L		0.003		E365.1	04/01/15 08:28 / cm	03/31/15 14:03	FIA202-HE_150401A	44	28548
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	04/14/15 10:53 / dck		ICPMS204-B_150414A	26	R105478
Antimony	ND	mg/L		0.0005		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431
Arsenic	0.005	mg/L		0.001		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431
Barium	0.033	mg/L		0.003		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431
Beryllium	ND	mg/L		0.0008		E200.8	04/13/15 16:15 / dck		ICPMS204-B_150413B	70	R105453
Boron	ND	mg/L		0.1		E200.7	03/31/15 12:18 / sld		ICP2-HE_150331B	47	R105154
Cadmium	0.00018	mg/L		0.00003		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431
Calcium	43	mg/L		1		E200.7	03/31/15 12:18 / sld		ICP2-HE_150331B	47	R105154
Chromium	ND	mg/L		0.01		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431
Cobalt	ND	mg/L		0.01		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431
Copper	0.012	mg/L		0.001		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431
Iron	0.04	mg/L		0.02		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19
Lab ID: H15030394-016
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 09:00
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431
Magnesium	9	mg/L		1		E200.7	03/31/15 12:18 / sld		ICP2-HE_150331B	47	R105154
Manganese	0.137	mg/L		0.001		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431
Mercury	ND	mg/L		5E-06		E245.1	04/07/15 12:29 / rgk	04/06/15 11:32	HGCV202-H_150407A	35	28595
Molybdenum	ND	mg/L		0.005		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431
Nickel	ND	mg/L		0.002		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431
Potassium	4	mg/L		1		E200.7	03/31/15 12:18 / sld		ICP2-HE_150331B	47	R105154
Selenium	ND	mg/L		0.001		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431
Silver	ND	mg/L		0.0002		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431
Sodium	22	mg/L		1		E200.7	03/31/15 12:18 / sld		ICP2-HE_150331B	47	R105154
Uranium	0.0032	mg/L		0.0002		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431
Vanadium	ND	mg/L		0.1		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431
Zinc	0.081	mg/L		0.008		E200.8	04/09/15 14:43 / dck		ICPMS204-B_150409C	62	R105431
METALS, TOTAL RECOVERABLE											
Aluminum	0.361	mg/L		0.009		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Antimony	ND	mg/L		0.0005		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Arsenic	0.006	mg/L		0.001		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Barium	0.036	mg/L		0.003		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Beryllium	ND	mg/L		0.0008		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Boron	ND	mg/L		0.1		E200.7	04/01/15 17:50 / sld	03/31/15 09:40	ICP2-HE_150401B	79	28545
Cadmium	0.00036	mg/L		0.00003		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Calcium	46	mg/L		1		E200.7	04/01/15 17:50 / sld	03/31/15 09:40	ICP2-HE_150401B	79	28545
Chromium	ND	mg/L		0.01		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Cobalt	ND	mg/L		0.01		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Copper	0.021	mg/L		0.001		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Iron	0.45	mg/L		0.02		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Lead	0.0018	mg/L		0.0003		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Magnesium	10	mg/L		1		E200.7	04/01/15 17:50 / sld	03/31/15 09:40	ICP2-HE_150401B	79	28545
Manganese	0.169	mg/L		0.001		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Mercury	0.000011	mg/L		5E-06		E245.1	04/07/15 12:33 / rgk	04/06/15 11:32	HGCV202-H_150407A	36	28595
Molybdenum	ND	mg/L		0.005		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19
Lab ID: H15030394-016
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 09:00
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Potassium	4	mg/L		1		E200.7	04/01/15 17:50 / sld	03/31/15 09:40	ICP2-HE_150401B	79	28545
Selenium	ND	mg/L		0.001		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Silver	ND	mg/L		0.0002		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Sodium	22	mg/L		1		E200.7	04/01/15 17:50 / sld	03/31/15 09:40	ICP2-HE_150401B	79	28545
Uranium	0.0033	mg/L		0.0002		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Vanadium	ND	mg/L		0.1		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545
Zinc	0.109	mg/L		0.008		E200.8	04/08/15 17:31 / dck	03/31/15 09:40	ICPMS204-B_150408A	182	28545

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G Sediment Sieve <0.065mm
Lab ID: H15030394-017
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 15:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	5.9	wt% Passed		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	1	R105684
PHYSICAL CHARACTERISTICS											
Moisture	65.9	wt%		0.2		D2974	04/22/15 15:04 / edp		DRYING OVEN 2_150421A	1	R105653
3050 EXTRACTABLE METALS											
Aluminum	17600	mg/kg-dry		9		SW6010B	04/13/15 15:33 / sld	04/09/15 09:59	ICP2-HE_150413B	70	28625
Antimony	ND	mg/kg-dry		5		SW6020	04/14/15 13:24 / dck	04/09/15 09:59	ICPMS204-B_150414B	71	28625
Arsenic	84	mg/kg-dry		5		SW6020	04/14/15 13:24 / dck	04/09/15 09:59	ICPMS204-B_150414B	71	28625
Barium	331	mg/kg-dry		5		SW6010B	04/13/15 15:33 / sld	04/09/15 09:59	ICP2-HE_150413B	70	28625
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 15:33 / sld	04/09/15 09:59	ICP2-HE_150413B	70	28625
Boron	16	mg/kg-dry		5		SW6010B	04/13/15 15:33 / sld	04/09/15 09:59	ICP2-HE_150413B	70	28625
Cadmium	11	mg/kg-dry	D	2		SW6020	04/14/15 13:24 / dck	04/09/15 09:59	ICPMS204-B_150414B	71	28625
Chromium	45	mg/kg-dry		5		SW6020	04/14/15 13:24 / dck	04/09/15 09:59	ICPMS204-B_150414B	71	28625
Cobalt	10	mg/kg-dry		5		SW6010B	04/13/15 15:33 / sld	04/09/15 09:59	ICP2-HE_150413B	70	28625
Copper	788	mg/kg-dry		5		SW6010B	04/13/15 15:33 / sld	04/09/15 09:59	ICP2-HE_150413B	70	28625
Iron	28000	mg/kg-dry		8		SW6010B	04/13/15 15:33 / sld	04/09/15 09:59	ICP2-HE_150413B	70	28625
Lead	360	mg/kg-dry		5		SW6020	04/14/15 13:24 / dck	04/09/15 09:59	ICPMS204-B_150414B	71	28625
Manganese	7820	mg/kg-dry		5		SW6010B	04/13/15 15:33 / sld	04/09/15 09:59	ICP2-HE_150413B	70	28625
Molybdenum	16	mg/kg-dry		5		SW6020	04/14/15 13:24 / dck	04/09/15 09:59	ICPMS204-B_150414B	71	28625
Nickel	22	mg/kg-dry		5		SW6010B	04/13/15 15:33 / sld	04/09/15 09:59	ICP2-HE_150413B	70	28625
Selenium	5	mg/kg-dry		5		SW6020	04/14/15 13:24 / dck	04/09/15 09:59	ICPMS204-B_150414B	71	28625
Silver	ND	mg/kg-dry		5		SW6020	04/14/15 15:53 / dck	04/09/15 09:59	ICPMS204-B_150414B	109	28625
Uranium	5	mg/kg-dry		5		SW6020	04/14/15 13:24 / dck	04/09/15 09:59	ICPMS204-B_150414B	71	28625
Vanadium	90	mg/kg-dry	D	10		SW6020	04/14/15 13:24 / dck	04/09/15 09:59	ICPMS204-B_150414B	71	28625
Zinc	2050	mg/kg-dry		5		SW6010B	04/13/15 15:33 / sld	04/09/15 09:59	ICP2-HE_150413B	70	28625
METALS, TOTAL											
Mercury	1.1	mg/kg-dry		0.10		SW7471B	04/15/15 10:27 / rgk	04/14/15 09:57	HGCV201-H_150415A	11	28653

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G Sediment Sieve 0.065-1mm
Lab ID: H15030394-018
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 15:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	32.1	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	2	R105684
PHYSICAL CHARACTERISTICS											
Moisture	25.7	wt%		0.2		D2974	04/22/15 15:04 / edp		DRYING OVEN 2_150421A	3	R105653
3050 EXTRACTABLE METALS											
Aluminum	5300	mg/kg-dry		5		SW6010B	04/13/15 14:30 / sld	04/09/15 09:53	ICP2-HE_150413B	53	28624
Antimony	ND	mg/kg-dry		5		SW6020	04/13/15 22:16 / dck	04/09/15 09:53	ICPMS204-B_150413C	83	28624
Arsenic	34	mg/kg-dry		5		SW6020	04/13/15 22:16 / dck	04/09/15 09:53	ICPMS204-B_150413C	83	28624
Barium	113	mg/kg-dry		5		SW6010B	04/13/15 14:30 / sld	04/09/15 09:53	ICP2-HE_150413B	53	28624
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 14:30 / sld	04/09/15 09:53	ICP2-HE_150413B	53	28624
Boron	ND	mg/kg-dry		5		SW6010B	04/13/15 14:30 / sld	04/09/15 09:53	ICP2-HE_150413B	53	28624
Cadmium	1.9	mg/kg-dry		0.2		SW6020	04/13/15 22:16 / dck	04/09/15 09:53	ICPMS204-B_150413C	83	28624
Chromium	12	mg/kg-dry		5		SW6020	04/13/15 22:16 / dck	04/09/15 09:53	ICPMS204-B_150413C	83	28624
Cobalt	ND	mg/kg-dry		5		SW6010B	04/13/15 14:30 / sld	04/09/15 09:53	ICP2-HE_150413B	53	28624
Copper	168	mg/kg-dry		5		SW6010B	04/13/15 14:30 / sld	04/09/15 09:53	ICP2-HE_150413B	53	28624
Iron	13100	mg/kg-dry		5		SW6010B	04/13/15 14:30 / sld	04/09/15 09:53	ICP2-HE_150413B	53	28624
Lead	92	mg/kg-dry		5		SW6020	04/13/15 22:16 / dck	04/09/15 09:53	ICPMS204-B_150413C	83	28624
Manganese	1300	mg/kg-dry		5		SW6010B	04/13/15 14:30 / sld	04/09/15 09:53	ICP2-HE_150413B	53	28624
Molybdenum	ND	mg/kg-dry		5		SW6020	04/13/15 22:16 / dck	04/09/15 09:53	ICPMS204-B_150413C	83	28624
Nickel	ND	mg/kg-dry		5		SW6010B	04/13/15 14:30 / sld	04/09/15 09:53	ICP2-HE_150413B	53	28624
Selenium	ND	mg/kg-dry		5		SW6020	04/13/15 22:16 / dck	04/09/15 09:53	ICPMS204-B_150413C	83	28624
Silver	ND	mg/kg-dry		5		SW6020	04/13/15 22:16 / dck	04/09/15 09:53	ICPMS204-B_150413C	83	28624
Uranium	ND	mg/kg-dry		5		SW6020	04/14/15 12:33 / dck	04/09/15 09:53	ICPMS204-B_150414B	51	28624
Vanadium	35	mg/kg-dry	D	7		SW6020	04/14/15 12:33 / dck	04/09/15 09:53	ICPMS204-B_150414B	51	28624
Zinc	723	mg/kg-dry		5		SW6010B	04/13/15 14:30 / sld	04/09/15 09:53	ICP2-HE_150413B	53	28624
METALS, TOTAL											
Mercury	0.15	mg/kg-dry		0.10		SW7471B	04/15/15 10:30 / rgk	04/14/15 09:57	HGCV201-H_150415A	12	28653

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G Sediment Sieve 1-2mm
Lab ID: H15030394-019
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 15:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	43.4	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	3	R105684
PHYSICAL CHARACTERISTICS											
Moisture	13.6	wt%		0.2		D2974	04/22/15 15:04 / edp		DRYING OVEN 2_150421A	4	R105653
3050 EXTRACTABLE METALS											
Aluminum	3570	mg/kg-dry		5		SW6010B	04/13/15 13:35 / sld	04/09/15 09:47	ICP2-HE_150413B	38	28623
Antimony	ND	mg/kg-dry		5		SW6020	04/13/15 21:32 / dck	04/09/15 09:47	ICPMS204-B_150413C	66	28623
Arsenic	18	mg/kg-dry		5		SW6020	04/13/15 21:32 / dck	04/09/15 09:47	ICPMS204-B_150413C	66	28623
Barium	83	mg/kg-dry		5		SW6010B	04/13/15 13:35 / sld	04/09/15 09:47	ICP2-HE_150413B	38	28623
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 13:35 / sld	04/09/15 09:47	ICP2-HE_150413B	38	28623
Boron	ND	mg/kg-dry		5		SW6010B	04/22/15 16:12 / sld	04/21/15 11:02	ICP2-HE_150422C	40	28717
Cadmium	0.6	mg/kg-dry		0.2		SW6020	04/13/15 21:32 / dck	04/09/15 09:47	ICPMS204-B_150413C	66	28623
Chromium	5	mg/kg-dry		5		SW6020	04/13/15 21:32 / dck	04/09/15 09:47	ICPMS204-B_150413C	66	28623
Cobalt	ND	mg/kg-dry		5		SW6010B	04/13/15 13:35 / sld	04/09/15 09:47	ICP2-HE_150413B	38	28623
Copper	81	mg/kg-dry		5		SW6010B	04/22/15 16:12 / sld	04/21/15 11:02	ICP2-HE_150422C	40	28717
Iron	8250	mg/kg-dry		5		SW6010B	04/13/15 13:35 / sld	04/09/15 09:47	ICP2-HE_150413B	38	28623
Lead	41	mg/kg-dry		5		SW6020	04/13/15 21:32 / dck	04/09/15 09:47	ICPMS204-B_150413C	66	28623
Manganese	1100	mg/kg-dry		5		SW6010B	04/13/15 13:35 / sld	04/09/15 09:47	ICP2-HE_150413B	38	28623
Molybdenum	ND	mg/kg-dry		5		SW6020	04/13/15 21:32 / dck	04/09/15 09:47	ICPMS204-B_150413C	66	28623
Nickel	ND	mg/kg-dry		5		SW6010B	04/13/15 13:35 / sld	04/09/15 09:47	ICP2-HE_150413B	38	28623
Selenium	ND	mg/kg-dry		5		SW6020	04/13/15 21:32 / dck	04/09/15 09:47	ICPMS204-B_150413C	66	28623
Silver	7	mg/kg-dry		5		SW6020	04/13/15 21:32 / dck	04/09/15 09:47	ICPMS204-B_150413C	66	28623
Uranium	ND	mg/kg-dry		5		SW6020	04/14/15 12:05 / dck	04/09/15 09:47	ICPMS204-B_150414B	40	28623
Vanadium	25	mg/kg-dry	D	7		SW6020	04/14/15 12:05 / dck	04/09/15 09:47	ICPMS204-B_150414B	40	28623
Zinc	246	mg/kg-dry		5		SW6010B	04/20/15 12:41 / sld	04/16/15 16:48	ICP2-HE_150420B	25	28681
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/15/15 10:32 / rgk	04/14/15 09:57	HGCV201-H_150415A	13	28653

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07 Sediment Sieve <0.065mm
Lab ID: H15030394-020
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 14:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	7.7	wt% Passed		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	4	R105684
PHYSICAL CHARACTERISTICS											
Moisture	59.8	wt%		0.2		D2974	04/22/15 15:04 / edp		DRYING OVEN 2_150421A	5	R105653
3050 EXTRACTABLE METALS											
Aluminum	18900	mg/kg-dry		8		SW6010B	04/13/15 15:37 / sld	04/09/15 09:59	ICP2-HE_150413B	71	28625
Antimony	ND	mg/kg-dry		5		SW6020	04/14/15 13:27 / dck	04/09/15 09:59	ICPMS204-B_150414B	72	28625
Arsenic	95	mg/kg-dry		5		SW6020	04/14/15 13:27 / dck	04/09/15 09:59	ICPMS204-B_150414B	72	28625
Barium	233	mg/kg-dry		5		SW6010B	04/13/15 15:37 / sld	04/09/15 09:59	ICP2-HE_150413B	71	28625
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 15:37 / sld	04/09/15 09:59	ICP2-HE_150413B	71	28625
Boron	13	mg/kg-dry		5		SW6010B	04/13/15 15:37 / sld	04/09/15 09:59	ICP2-HE_150413B	71	28625
Cadmium	9	mg/kg-dry	D	2		SW6020	04/14/15 13:27 / dck	04/09/15 09:59	ICPMS204-B_150414B	72	28625
Chromium	45	mg/kg-dry		5		SW6020	04/14/15 13:27 / dck	04/09/15 09:59	ICPMS204-B_150414B	72	28625
Cobalt	6	mg/kg-dry		5		SW6010B	04/13/15 15:37 / sld	04/09/15 09:59	ICP2-HE_150413B	71	28625
Copper	813	mg/kg-dry		5		SW6010B	04/13/15 15:37 / sld	04/09/15 09:59	ICP2-HE_150413B	71	28625
Iron	26800	mg/kg-dry		7		SW6010B	04/13/15 15:37 / sld	04/09/15 09:59	ICP2-HE_150413B	71	28625
Lead	401	mg/kg-dry		5		SW6020	04/14/15 13:27 / dck	04/09/15 09:59	ICPMS204-B_150414B	72	28625
Manganese	982	mg/kg-dry		5		SW6010B	04/13/15 15:37 / sld	04/09/15 09:59	ICP2-HE_150413B	71	28625
Molybdenum	23	mg/kg-dry		5		SW6020	04/14/15 13:27 / dck	04/09/15 09:59	ICPMS204-B_150414B	72	28625
Nickel	21	mg/kg-dry		5		SW6010B	04/13/15 15:37 / sld	04/09/15 09:59	ICP2-HE_150413B	71	28625
Selenium	ND	mg/kg-dry		5		SW6020	04/14/15 13:27 / dck	04/09/15 09:59	ICPMS204-B_150414B	72	28625
Silver	ND	mg/kg-dry		5		SW6020	04/14/15 15:55 / dck	04/09/15 09:59	ICPMS204-B_150414B	110	28625
Uranium	10	mg/kg-dry		5		SW6020	04/14/15 13:27 / dck	04/09/15 09:59	ICPMS204-B_150414B	72	28625
Vanadium	87	mg/kg-dry	D	10		SW6020	04/14/15 13:27 / dck	04/09/15 09:59	ICPMS204-B_150414B	72	28625
Zinc	2010	mg/kg-dry		5		SW6010B	04/13/15 15:37 / sld	04/09/15 09:59	ICP2-HE_150413B	71	28625
METALS, TOTAL											
Mercury	0.99	mg/kg-dry		0.10		SW7471B	04/15/15 10:34 / rgk	04/14/15 09:57	HGCV201-H_150415A	14	28653

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07 Sediment Sieve 0.065-1mm
Lab ID: H15030394-021
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 14:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	39.1	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	5	R105684
PHYSICAL CHARACTERISTICS											
Moisture	33.1	wt%		0.2		D2974	04/22/15 15:04 / edp		DRYING OVEN 2_150421A	6	R105653
3050 EXTRACTABLE METALS											
Aluminum	5860	mg/kg-dry		5		SW6010B	04/13/15 14:34 / sld	04/09/15 09:53	ICP2-HE_150413B	54	28624
Antimony	ND	mg/kg-dry		5		SW6020	04/13/15 22:18 / dck	04/09/15 09:53	ICPMS204-B_150413C	84	28624
Arsenic	33	mg/kg-dry		5		SW6020	04/13/15 22:18 / dck	04/09/15 09:53	ICPMS204-B_150413C	84	28624
Barium	87	mg/kg-dry		5		SW6010B	04/13/15 14:34 / sld	04/09/15 09:53	ICP2-HE_150413B	54	28624
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 14:34 / sld	04/09/15 09:53	ICP2-HE_150413B	54	28624
Boron	ND	mg/kg-dry		5		SW6010B	04/13/15 14:34 / sld	04/09/15 09:53	ICP2-HE_150413B	54	28624
Cadmium	2.5	mg/kg-dry		0.2		SW6020	04/13/15 22:18 / dck	04/09/15 09:53	ICPMS204-B_150413C	84	28624
Chromium	18	mg/kg-dry		5		SW6020	04/13/15 22:18 / dck	04/09/15 09:53	ICPMS204-B_150413C	84	28624
Cobalt	ND	mg/kg-dry		5		SW6010B	04/13/15 14:34 / sld	04/09/15 09:53	ICP2-HE_150413B	54	28624
Copper	322	mg/kg-dry		5		SW6010B	04/13/15 14:34 / sld	04/09/15 09:53	ICP2-HE_150413B	54	28624
Iron	33400	mg/kg-dry		5		SW6010B	04/13/15 14:34 / sld	04/09/15 09:53	ICP2-HE_150413B	54	28624
Lead	87	mg/kg-dry		5		SW6020	04/13/15 22:18 / dck	04/09/15 09:53	ICPMS204-B_150413C	84	28624
Manganese	412	mg/kg-dry		5		SW6010B	04/13/15 14:34 / sld	04/09/15 09:53	ICP2-HE_150413B	54	28624
Molybdenum	ND	mg/kg-dry		5		SW6020	04/13/15 22:18 / dck	04/09/15 09:53	ICPMS204-B_150413C	84	28624
Nickel	6	mg/kg-dry		5		SW6010B	04/13/15 14:34 / sld	04/09/15 09:53	ICP2-HE_150413B	54	28624
Selenium	ND	mg/kg-dry		5		SW6020	04/13/15 22:18 / dck	04/09/15 09:53	ICPMS204-B_150413C	84	28624
Silver	ND	mg/kg-dry		5		SW6020	04/14/15 12:35 / dck	04/09/15 09:53	ICPMS204-B_150414B	52	28624
Uranium	ND	mg/kg-dry		5		SW6020	04/14/15 12:35 / dck	04/09/15 09:53	ICPMS204-B_150414B	52	28624
Vanadium	76	mg/kg-dry	D	7		SW6020	04/14/15 12:35 / dck	04/09/15 09:53	ICPMS204-B_150414B	52	28624
Zinc	867	mg/kg-dry		5		SW6010B	04/13/15 14:34 / sld	04/09/15 09:53	ICP2-HE_150413B	54	28624
METALS, TOTAL											
Mercury	0.22	mg/kg-dry		0.10		SW7471B	04/15/15 10:37 / rgk	04/14/15 09:57	HGCV201-H_150415A	15	28653

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07 Sediment Sieve 1-2mm
Lab ID: H15030394-022
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 14:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	20.2	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	6	R105684
PHYSICAL CHARACTERISTICS											
Moisture	23.0	wt%		0.2		D2974	04/22/15 15:04 / edp		DRYING OVEN 2_150421A	7	R105653
3050 EXTRACTABLE METALS											
Aluminum	2050	mg/kg-dry		5		SW6010B	04/13/15 13:38 / sld	04/09/15 09:47	ICP2-HE_150413B	39	28623
Antimony	ND	mg/kg-dry		5		SW6020	04/13/15 21:35 / dck	04/09/15 09:47	ICPMS204-B_150413C	67	28623
Arsenic	9	mg/kg-dry		5		SW6020	04/13/15 21:35 / dck	04/09/15 09:47	ICPMS204-B_150413C	67	28623
Barium	34	mg/kg-dry		5		SW6010B	04/13/15 13:38 / sld	04/09/15 09:47	ICP2-HE_150413B	39	28623
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 13:38 / sld	04/09/15 09:47	ICP2-HE_150413B	39	28623
Boron	ND	mg/kg-dry		5		SW6010B	04/13/15 13:38 / sld	04/09/15 09:47	ICP2-HE_150413B	39	28623
Cadmium	0.5	mg/kg-dry		0.2		SW6020	04/13/15 21:35 / dck	04/09/15 09:47	ICPMS204-B_150413C	67	28623
Chromium	ND	mg/kg-dry		5		SW6020	04/13/15 21:35 / dck	04/09/15 09:47	ICPMS204-B_150413C	67	28623
Cobalt	ND	mg/kg-dry		5		SW6010B	04/13/15 13:38 / sld	04/09/15 09:47	ICP2-HE_150413B	39	28623
Copper	57	mg/kg-dry		5		SW6010B	04/13/15 13:38 / sld	04/09/15 09:47	ICP2-HE_150413B	39	28623
Iron	6000	mg/kg-dry		5		SW6010B	04/20/15 12:52 / sld	04/16/15 16:48	ICP2-HE_150420B	28	28681
Lead	63	mg/kg-dry		5		SW6020	04/14/15 12:07 / dck	04/09/15 09:47	ICPMS204-B_150414B	41	28623
Manganese	132	mg/kg-dry		5		SW6010B	04/13/15 13:38 / sld	04/09/15 09:47	ICP2-HE_150413B	39	28623
Molybdenum	ND	mg/kg-dry		5		SW6020	04/13/15 21:35 / dck	04/09/15 09:47	ICPMS204-B_150413C	67	28623
Nickel	ND	mg/kg-dry		5		SW6010B	04/13/15 13:38 / sld	04/09/15 09:47	ICP2-HE_150413B	39	28623
Selenium	ND	mg/kg-dry		5		SW6020	04/13/15 21:35 / dck	04/09/15 09:47	ICPMS204-B_150413C	67	28623
Silver	ND	mg/kg-dry		5		SW6020	04/13/15 21:35 / dck	04/09/15 09:47	ICPMS204-B_150413C	67	28623
Uranium	ND	mg/kg-dry		5		SW6020	04/14/15 12:07 / dck	04/09/15 09:47	ICPMS204-B_150414B	41	28623
Vanadium	16	mg/kg-dry	D	7		SW6020	04/14/15 12:07 / dck	04/09/15 09:47	ICPMS204-B_150414B	41	28623
Zinc	186	mg/kg-dry		5		SW6010B	04/20/15 12:52 / sld	04/16/15 16:48	ICP2-HE_150420B	28	28681
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/15/15 10:39 / rgk	04/14/15 09:57	HGCV201-H_150415A	16	28653

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08 Sediment Sieve <0.065mm
Lab ID: H15030394-023
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 13:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	9.6	wt% Passed		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	7	R105684
PHYSICAL CHARACTERISTICS											
Moisture	66.0	wt%		0.2		D2974	04/22/15 15:04 / edp		DRYING OVEN 2_150421A	8	R105653
3050 EXTRACTABLE METALS											
Aluminum	18100	mg/kg-dry		10		SW6010B	04/13/15 15:41 / sld	04/09/15 09:59	ICP2-HE_150413B	72	28625
Antimony	ND	mg/kg-dry		5		SW6020	04/14/15 13:29 / dck	04/09/15 09:59	ICPMS204-B_150414B	73	28625
Arsenic	64	mg/kg-dry		5		SW6020	04/14/15 13:29 / dck	04/09/15 09:59	ICPMS204-B_150414B	73	28625
Barium	318	mg/kg-dry		5		SW6010B	04/13/15 15:41 / sld	04/09/15 09:59	ICP2-HE_150413B	72	28625
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 15:41 / sld	04/09/15 09:59	ICP2-HE_150413B	72	28625
Boron	15	mg/kg-dry		5		SW6010B	04/13/15 15:41 / sld	04/09/15 09:59	ICP2-HE_150413B	72	28625
Cadmium	11	mg/kg-dry	D	2		SW6020	04/14/15 13:29 / dck	04/09/15 09:59	ICPMS204-B_150414B	73	28625
Chromium	34	mg/kg-dry		5		SW6020	04/14/15 13:29 / dck	04/09/15 09:59	ICPMS204-B_150414B	73	28625
Cobalt	ND	mg/kg-dry		5		SW6010B	04/13/15 15:41 / sld	04/09/15 09:59	ICP2-HE_150413B	72	28625
Copper	802	mg/kg-dry		5		SW6010B	04/13/15 15:41 / sld	04/09/15 09:59	ICP2-HE_150413B	72	28625
Iron	30100	mg/kg-dry		9		SW6010B	04/13/15 15:41 / sld	04/09/15 09:59	ICP2-HE_150413B	72	28625
Lead	365	mg/kg-dry		5		SW6020	04/14/15 13:29 / dck	04/09/15 09:59	ICPMS204-B_150414B	73	28625
Manganese	1660	mg/kg-dry		5		SW6010B	04/13/15 15:41 / sld	04/09/15 09:59	ICP2-HE_150413B	72	28625
Molybdenum	15	mg/kg-dry		5		SW6020	04/14/15 13:29 / dck	04/09/15 09:59	ICPMS204-B_150414B	73	28625
Nickel	15	mg/kg-dry		5		SW6010B	04/13/15 15:41 / sld	04/09/15 09:59	ICP2-HE_150413B	72	28625
Selenium	6	mg/kg-dry		5		SW6020	04/14/15 13:29 / dck	04/09/15 09:59	ICPMS204-B_150414B	73	28625
Silver	5	mg/kg-dry		5		SW6020	04/14/15 15:58 / dck	04/09/15 09:59	ICPMS204-B_150414B	111	28625
Uranium	10	mg/kg-dry		5		SW6020	04/14/15 13:29 / dck	04/09/15 09:59	ICPMS204-B_150414B	73	28625
Vanadium	71	mg/kg-dry	D	10		SW6020	04/14/15 13:29 / dck	04/09/15 09:59	ICPMS204-B_150414B	73	28625
Zinc	1910	mg/kg-dry		5		SW6010B	04/13/15 15:41 / sld	04/09/15 09:59	ICP2-HE_150413B	72	28625
METALS, TOTAL											
Mercury	2.1	mg/kg-dry		0.10		SW7471B	04/15/15 11:34 / rgk	04/14/15 09:57	HGCV201-H_150415A	35	28653

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08 Sediment Sieve 0.065-1mm
Lab ID: H15030394-024
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 13:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	42.9	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	8	R105684
PHYSICAL CHARACTERISTICS											
Moisture	35.5	wt%		0.2		D2974	04/22/15 15:04 / edp		DRYING OVEN 2_150421A	9	R105653
3050 EXTRACTABLE METALS											
Aluminum	6640	mg/kg-dry		5		SW6010B	04/13/15 14:45 / sld	04/09/15 09:53	ICP2-HE_150413B	57	28624
Antimony	ND	mg/kg-dry		5		SW6020	04/13/15 22:21 / dck	04/09/15 09:53	ICPMS204-B_150413C	85	28624
Arsenic	101	mg/kg-dry		5		SW6020	04/13/15 22:21 / dck	04/09/15 09:53	ICPMS204-B_150413C	85	28624
Barium	138	mg/kg-dry		5		SW6010B	04/13/15 14:45 / sld	04/09/15 09:53	ICP2-HE_150413B	57	28624
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 14:45 / sld	04/09/15 09:53	ICP2-HE_150413B	57	28624
Boron	ND	mg/kg-dry		5		SW6010B	04/13/15 14:45 / sld	04/09/15 09:53	ICP2-HE_150413B	57	28624
Cadmium	4.0	mg/kg-dry		0.2		SW6020	04/13/15 22:21 / dck	04/09/15 09:53	ICPMS204-B_150413C	85	28624
Chromium	13	mg/kg-dry		5		SW6020	04/13/15 22:21 / dck	04/09/15 09:53	ICPMS204-B_150413C	85	28624
Cobalt	ND	mg/kg-dry		5		SW6010B	04/13/15 14:45 / sld	04/09/15 09:53	ICP2-HE_150413B	57	28624
Copper	405	mg/kg-dry		5		SW6010B	04/13/15 14:45 / sld	04/09/15 09:53	ICP2-HE_150413B	57	28624
Iron	11400	mg/kg-dry		5		SW6010B	04/13/15 14:45 / sld	04/09/15 09:53	ICP2-HE_150413B	57	28624
Lead	120	mg/kg-dry		5		SW6020	04/13/15 22:21 / dck	04/09/15 09:53	ICPMS204-B_150413C	85	28624
Manganese	372	mg/kg-dry		5		SW6010B	04/13/15 14:45 / sld	04/09/15 09:53	ICP2-HE_150413B	57	28624
Molybdenum	ND	mg/kg-dry		5		SW6020	04/13/15 22:21 / dck	04/09/15 09:53	ICPMS204-B_150413C	85	28624
Nickel	ND	mg/kg-dry		5		SW6010B	04/13/15 14:45 / sld	04/09/15 09:53	ICP2-HE_150413B	57	28624
Selenium	ND	mg/kg-dry		5		SW6020	04/13/15 22:21 / dck	04/09/15 09:53	ICPMS204-B_150413C	85	28624
Silver	ND	mg/kg-dry		5		SW6020	04/13/15 22:21 / dck	04/09/15 09:53	ICPMS204-B_150413C	85	28624
Uranium	ND	mg/kg-dry		5		SW6020	04/14/15 12:38 / dck	04/09/15 09:53	ICPMS204-B_150414B	53	28624
Vanadium	27	mg/kg-dry	D	7		SW6020	04/14/15 12:38 / dck	04/09/15 09:53	ICPMS204-B_150414B	53	28624
Zinc	619	mg/kg-dry		5		SW6010B	04/13/15 14:45 / sld	04/09/15 09:53	ICP2-HE_150413B	57	28624
METALS, TOTAL											
Mercury	0.55	mg/kg-dry		0.10		SW7471B	04/15/15 10:44 / rgk	04/14/15 09:57	HGCV201-H_150415A	18	28653

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08 Sediment Sieve 1-2mm
Lab ID: H15030394-025
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 13:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	36.3	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	9	R105684
PHYSICAL CHARACTERISTICS											
Moisture	24.2	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	10	R105653
3050 EXTRACTABLE METALS											
Aluminum	6430	mg/kg-dry		5		SW6010B	04/13/15 13:42 / sld	04/09/15 09:47	ICP2-HE_150413B	40	28623
Antimony	ND	mg/kg-dry		5		SW6020	04/13/15 21:37 / dck	04/09/15 09:47	ICPMS204-B_150413C	68	28623
Arsenic	19	mg/kg-dry		5		SW6020	04/13/15 21:37 / dck	04/09/15 09:47	ICPMS204-B_150413C	68	28623
Barium	90	mg/kg-dry		5		SW6010B	04/13/15 13:42 / sld	04/09/15 09:47	ICP2-HE_150413B	40	28623
Beryllium	ND	mg/kg-dry		5		SW6010B	04/13/15 13:42 / sld	04/09/15 09:47	ICP2-HE_150413B	40	28623
Boron	6	mg/kg-dry		5		SW6010B	04/13/15 13:42 / sld	04/09/15 09:47	ICP2-HE_150413B	40	28623
Cadmium	2.4	mg/kg-dry		0.2		SW6020	04/13/15 21:37 / dck	04/09/15 09:47	ICPMS204-B_150413C	68	28623
Chromium	6	mg/kg-dry		5		SW6020	04/13/15 21:37 / dck	04/09/15 09:47	ICPMS204-B_150413C	68	28623
Cobalt	ND	mg/kg-dry		5		SW6010B	04/13/15 13:42 / sld	04/09/15 09:47	ICP2-HE_150413B	40	28623
Copper	98	mg/kg-dry		5		SW6010B	04/22/15 16:20 / sld	04/21/15 11:02	ICP2-HE_150422C	42	28717
Iron	10300	mg/kg-dry		5		SW6010B	04/13/15 13:42 / sld	04/09/15 09:47	ICP2-HE_150413B	40	28623
Lead	48	mg/kg-dry		5		SW6020	04/13/15 21:37 / dck	04/09/15 09:47	ICPMS204-B_150413C	68	28623
Manganese	333	mg/kg-dry		5		SW6010B	04/13/15 13:42 / sld	04/09/15 09:47	ICP2-HE_150413B	40	28623
Molybdenum	ND	mg/kg-dry		5		SW6020	04/13/15 21:37 / dck	04/09/15 09:47	ICPMS204-B_150413C	68	28623
Nickel	ND	mg/kg-dry		5		SW6010B	04/13/15 13:42 / sld	04/09/15 09:47	ICP2-HE_150413B	40	28623
Selenium	ND	mg/kg-dry		5		SW6020	04/13/15 21:37 / dck	04/09/15 09:47	ICPMS204-B_150413C	68	28623
Silver	ND	mg/kg-dry		5		SW6020	04/13/15 21:37 / dck	04/09/15 09:47	ICPMS204-B_150413C	68	28623
Uranium	ND	mg/kg-dry		5		SW6020	04/14/15 12:10 / dck	04/09/15 09:47	ICPMS204-B_150414B	42	28623
Vanadium	26	mg/kg-dry	D	6		SW6020	04/14/15 12:10 / dck	04/09/15 09:47	ICPMS204-B_150414B	42	28623
Zinc	355	mg/kg-dry		5		SW6010B	04/20/15 12:56 / sld	04/16/15 16:48	ICP2-HE_150420B	29	28681
METALS, TOTAL											
Mercury	0.17	mg/kg-dry		0.10		SW7471B	04/15/15 10:46 / rgk	04/14/15 09:57	HGCV201-H_150415A	19	28653

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A Sediment Sieve <0.065mm
Lab ID: H15030394-026
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 12:00
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	7.9	wt% Passed		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	: 10	R105684
PHYSICAL CHARACTERISTICS											
Moisture	59.2	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	: 11	R105653
3050 EXTRACTABLE METALS											
Aluminum	33500	mg/kg-dry		8		SW6010B	04/20/15 14:55 / sld	04/16/15 15:33	ICP2-HE_150420B	: 61	28680
Antimony	ND	mg/kg-dry		5		SW6020	04/21/15 00:54 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 58	28680
Arsenic	39	mg/kg-dry		5		SW6020	04/21/15 00:54 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 58	28680
Barium	384	mg/kg-dry		5		SW6010B	04/20/15 14:55 / sld	04/16/15 15:33	ICP2-HE_150420B	: 61	28680
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 14:55 / sld	04/16/15 15:33	ICP2-HE_150420B	: 61	28680
Boron	12	mg/kg-dry		5		SW6010B	04/20/15 14:55 / sld	04/16/15 15:33	ICP2-HE_150420B	: 61	28680
Cadmium	9	mg/kg-dry	D	2		SW6020	04/21/15 00:54 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 58	28680
Chromium	26	mg/kg-dry		5		SW6020	04/21/15 00:54 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 58	28680
Cobalt	13	mg/kg-dry		5		SW6020	04/21/15 00:54 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 58	28680
Copper	552	mg/kg-dry		5		SW6010B	04/20/15 14:55 / sld	04/16/15 15:33	ICP2-HE_150420B	: 61	28680
Iron	29000	mg/kg-dry		7		SW6010B	04/20/15 14:55 / sld	04/16/15 15:33	ICP2-HE_150420B	: 61	28680
Lead	234	mg/kg-dry		5		SW6020	04/21/15 00:54 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 58	28680
Manganese	2370	mg/kg-dry		5		SW6010B	04/20/15 14:55 / sld	04/16/15 15:33	ICP2-HE_150420B	: 61	28680
Molybdenum	7	mg/kg-dry		5		SW6020	04/21/15 00:54 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 58	28680
Nickel	15	mg/kg-dry		5		SW6010B	04/20/15 14:55 / sld	04/16/15 15:33	ICP2-HE_150420B	: 61	28680
Selenium	ND	mg/kg-dry		5		SW6020	04/21/15 00:54 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 58	28680
Silver	ND	mg/kg-dry		5		SW6020	04/21/15 00:54 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 58	28680
Uranium	6	mg/kg-dry		5		SW6020	04/21/15 00:54 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 58	28680
Vanadium	46	mg/kg-dry		2		SW6010B	04/20/15 14:55 / sld	04/16/15 15:33	ICP2-HE_150420B	: 61	28680
Zinc	1490	mg/kg-dry		5		SW6010B	04/20/15 14:55 / sld	04/16/15 15:33	ICP2-HE_150420B	: 61	28680
METALS, TOTAL											
Mercury	0.87	mg/kg-dry		0.10		SW7471B	04/15/15 10:53 / rgk	04/14/15 09:57	HGCV201-H_150415A	: 22	28653

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A Sediment Sieve 0.065-1mm
Lab ID: H15030394-027
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 12:00
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	22.4	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	11	R105684
PHYSICAL CHARACTERISTICS											
Moisture	42.4	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	12	R105653
3050 EXTRACTABLE METALS											
Aluminum	16600	mg/kg-dry		6		SW6010B	04/21/15 18:09 / sld	04/20/15 08:23	ICP2-HE_150421B	61	28693
Antimony	ND	mg/kg-dry		5		SW6020	04/22/15 12:43 / dck	04/20/15 08:23	ICPMS204-B_150422A	38	28693
Arsenic	17	mg/kg-dry		5		SW6020	04/22/15 12:43 / dck	04/20/15 08:23	ICPMS204-B_150422A	38	28693
Barium	231	mg/kg-dry		5		SW6020	04/22/15 12:43 / dck	04/20/15 08:23	ICPMS204-B_150422A	38	28693
Beryllium	ND	mg/kg-dry		5		SW6010B	04/21/15 18:09 / sld	04/20/15 08:23	ICP2-HE_150421B	61	28693
Boron	ND	mg/kg-dry		5		SW6010B	04/21/15 18:09 / sld	04/20/15 08:23	ICP2-HE_150421B	61	28693
Cadmium	3.1	mg/kg-dry		0.3		SW6020	04/22/15 12:43 / dck	04/20/15 08:23	ICPMS204-B_150422A	38	28693
Chromium	11	mg/kg-dry		5		SW6020	04/22/15 12:43 / dck	04/20/15 08:23	ICPMS204-B_150422A	38	28693
Cobalt	8	mg/kg-dry		5		SW6020	04/22/15 12:43 / dck	04/20/15 08:23	ICPMS204-B_150422A	38	28693
Copper	154	mg/kg-dry		5		SW6010B	04/21/15 18:09 / sld	04/20/15 08:23	ICP2-HE_150421B	61	28693
Iron	19900	mg/kg-dry		5		SW6010B	04/21/15 18:09 / sld	04/20/15 08:23	ICP2-HE_150421B	61	28693
Lead	86	mg/kg-dry		5		SW6020	04/22/15 12:43 / dck	04/20/15 08:23	ICPMS204-B_150422A	38	28693
Manganese	1170	mg/kg-dry		5		SW6010B	04/21/15 18:09 / sld	04/20/15 08:23	ICP2-HE_150421B	61	28693
Molybdenum	ND	mg/kg-dry		5		SW6020	04/22/15 12:43 / dck	04/20/15 08:23	ICPMS204-B_150422A	38	28693
Nickel	ND	mg/kg-dry		5		SW6010B	04/21/15 18:09 / sld	04/20/15 08:23	ICP2-HE_150421B	61	28693
Selenium	ND	mg/kg-dry		5		SW6020	04/22/15 12:43 / dck	04/20/15 08:23	ICPMS204-B_150422A	38	28693
Silver	ND	mg/kg-dry		5		SW6020	04/22/15 12:43 / dck	04/20/15 08:23	ICPMS204-B_150422A	38	28693
Uranium	ND	mg/kg-dry		5		SW6020	04/22/15 12:43 / dck	04/20/15 08:23	ICPMS204-B_150422A	38	28693
Vanadium	41	mg/kg-dry		1		SW6010B	04/21/15 18:09 / sld	04/20/15 08:23	ICP2-HE_150421B	61	28693
Zinc	453	mg/kg-dry		5		SW6010B	04/21/15 18:09 / sld	04/20/15 08:23	ICP2-HE_150421B	61	28693
METALS, TOTAL											
Mercury	0.33	mg/kg-dry		0.10		SW7471B	04/15/15 11:03 / rgk	04/14/15 09:57	HGCV201-H_150415A	26	28653

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A Sediment Sieve 1-2mm
Lab ID: H15030394-028
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 12:00
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	21.7	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	12	R105684
PHYSICAL CHARACTERISTICS											
Moisture	41.3	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	14	R105653
3050 EXTRACTABLE METALS											
Aluminum	33500	mg/kg-dry		6		SW6010B	04/20/15 13:00 / sld	04/16/15 16:48	ICP2-HE_150420B	30	28681
Antimony	ND	mg/kg-dry		5		SW6020	04/20/15 23:21 / sld	04/16/15 16:48	ICPMS204-B_150420B	29	28681
Arsenic	16	mg/kg-dry		5		SW6020	04/20/15 23:21 / sld	04/16/15 16:48	ICPMS204-B_150420B	29	28681
Barium	312	mg/kg-dry		5		SW6010B	04/20/15 13:00 / sld	04/16/15 16:48	ICP2-HE_150420B	30	28681
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 13:00 / sld	04/16/15 16:48	ICP2-HE_150420B	30	28681
Boron	6	mg/kg-dry		5		SW6010B	04/20/15 13:00 / sld	04/16/15 16:48	ICP2-HE_150420B	30	28681
Cadmium	2	mg/kg-dry	D	1		SW6020	04/20/15 23:21 / sld	04/16/15 16:48	ICPMS204-B_150420B	29	28681
Chromium	8	mg/kg-dry		5		SW6020	04/20/15 23:21 / sld	04/16/15 16:48	ICPMS204-B_150420B	29	28681
Cobalt	9	mg/kg-dry		5		SW6020	04/20/15 23:21 / sld	04/16/15 16:48	ICPMS204-B_150420B	29	28681
Copper	91	mg/kg-dry		5		SW6010B	04/20/15 13:00 / sld	04/16/15 16:48	ICP2-HE_150420B	30	28681
Iron	22300	mg/kg-dry		5		SW6010B	04/20/15 13:00 / sld	04/16/15 16:48	ICP2-HE_150420B	30	28681
Lead	83	mg/kg-dry		5		SW6020	04/20/15 23:21 / sld	04/16/15 16:48	ICPMS204-B_150420B	29	28681
Manganese	2160	mg/kg-dry		5		SW6010B	04/20/15 13:00 / sld	04/16/15 16:48	ICP2-HE_150420B	30	28681
Molybdenum	ND	mg/kg-dry		5		SW6020	04/20/15 23:21 / sld	04/16/15 16:48	ICPMS204-B_150420B	29	28681
Nickel	ND	mg/kg-dry		5		SW6010B	04/20/15 13:00 / sld	04/16/15 16:48	ICP2-HE_150420B	30	28681
Selenium	ND	mg/kg-dry		5		SW6020	04/20/15 23:21 / sld	04/16/15 16:48	ICPMS204-B_150420B	29	28681
Silver	ND	mg/kg-dry		5		SW6010B	04/20/15 13:00 / sld	04/16/15 16:48	ICP2-HE_150420B	30	28681
Uranium	ND	mg/kg-dry		5		SW6020	04/20/15 23:21 / sld	04/16/15 16:48	ICPMS204-B_150420B	29	28681
Vanadium	25	mg/kg-dry		1		SW6010B	04/20/15 13:00 / sld	04/16/15 16:48	ICP2-HE_150420B	30	28681
Zinc	462	mg/kg-dry		5		SW6010B	04/20/15 13:00 / sld	04/16/15 16:48	ICP2-HE_150420B	30	28681
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/15/15 11:05 / rgk	04/14/15 09:57	HGCV201-H_150415A	27	28653

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-10A Duplicate 1 Sediment Sieve <0.065mm
Collection Date: 03/27/15 12:00
DateReceived: 03/30/15
Lab ID: H15030394-029
Report Date: 04/27/15
Revised Date: 04/29/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	15.0	wt% Passed		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	13	R105684
PHYSICAL CHARACTERISTICS											
Moisture	61.8	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	15	R105653
3050 EXTRACTABLE METALS											
Aluminum	27100	mg/kg-dry		8		SW6010B	04/20/15 14:59 / sld	04/16/15 15:33	ICP2-HE_150420B	62	28680
Antimony	ND	mg/kg-dry		5		SW6020	04/21/15 00:57 / sld	04/16/15 15:33	ICPMS204-B_150420B	59	28680
Arsenic	33	mg/kg-dry		5		SW6020	04/21/15 00:57 / sld	04/16/15 15:33	ICPMS204-B_150420B	59	28680
Barium	282	mg/kg-dry		5		SW6010B	04/20/15 14:59 / sld	04/16/15 15:33	ICP2-HE_150420B	62	28680
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 14:59 / sld	04/16/15 15:33	ICP2-HE_150420B	62	28680
Boron	10	mg/kg-dry		5		SW6010B	04/20/15 14:59 / sld	04/16/15 15:33	ICP2-HE_150420B	62	28680
Cadmium	7	mg/kg-dry	D	2		SW6020	04/21/15 00:57 / sld	04/16/15 15:33	ICPMS204-B_150420B	59	28680
Chromium	23	mg/kg-dry		5		SW6020	04/21/15 00:57 / sld	04/16/15 15:33	ICPMS204-B_150420B	59	28680
Cobalt	11	mg/kg-dry		5		SW6020	04/21/15 00:57 / sld	04/16/15 15:33	ICPMS204-B_150420B	59	28680
Copper	421	mg/kg-dry		5		SW6010B	04/20/15 14:59 / sld	04/16/15 15:33	ICP2-HE_150420B	62	28680
Iron	23000	mg/kg-dry		7		SW6010B	04/20/15 14:59 / sld	04/16/15 15:33	ICP2-HE_150420B	62	28680
Lead	200	mg/kg-dry		5		SW6020	04/21/15 00:57 / sld	04/16/15 15:33	ICPMS204-B_150420B	59	28680
Manganese	2160	mg/kg-dry		5		SW6010B	04/20/15 14:59 / sld	04/16/15 15:33	ICP2-HE_150420B	62	28680
Molybdenum	5	mg/kg-dry		5		SW6020	04/21/15 00:57 / sld	04/16/15 15:33	ICPMS204-B_150420B	59	28680
Nickel	13	mg/kg-dry		5		SW6010B	04/20/15 14:59 / sld	04/16/15 15:33	ICP2-HE_150420B	62	28680
Selenium	ND	mg/kg-dry		5		SW6020	04/21/15 00:57 / sld	04/16/15 15:33	ICPMS204-B_150420B	59	28680
Silver	ND	mg/kg-dry		5		SW6020	04/21/15 00:57 / sld	04/16/15 15:33	ICPMS204-B_150420B	59	28680
Uranium	5	mg/kg-dry		5		SW6020	04/21/15 00:57 / sld	04/16/15 15:33	ICPMS204-B_150420B	59	28680
Vanadium	33	mg/kg-dry		2		SW6010B	04/20/15 14:59 / sld	04/16/15 15:33	ICP2-HE_150420B	62	28680
Zinc	1210	mg/kg-dry		5		SW6010B	04/20/15 14:59 / sld	04/16/15 15:33	ICP2-HE_150420B	62	28680
METALS, TOTAL											
Mercury	0.86	mg/kg-dry		0.10		SW7471B	04/15/15 11:08 / rgk	04/14/15 09:57	HGCV201-H_150415A	28	28653

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-10A Duplicate 1 Sediment Sieve 0.065-1mm
Collection Date: 03/27/15 12:00
DateReceived: 03/30/15
Lab ID: H15030394-030
Report Date: 04/27/15
Revised Date: 04/29/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	26.2	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	14	R105684
PHYSICAL CHARACTERISTICS											
Moisture	44.9	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	16	R105653
3050 EXTRACTABLE METALS											
Aluminum	17000	mg/kg-dry		6		SW6010B	04/21/15 18:12 / sld	04/20/15 08:23	ICP2-HE_150421B	62	28693
Antimony	ND	mg/kg-dry		5		SW6020	04/22/15 12:46 / dck	04/20/15 08:23	ICPMS204-B_150422A	39	28693
Arsenic	16	mg/kg-dry		5		SW6020	04/22/15 12:46 / dck	04/20/15 08:23	ICPMS204-B_150422A	39	28693
Barium	239	mg/kg-dry		5		SW6020	04/22/15 12:46 / dck	04/20/15 08:23	ICPMS204-B_150422A	39	28693
Beryllium	ND	mg/kg-dry		5		SW6010B	04/21/15 18:12 / sld	04/20/15 08:23	ICP2-HE_150421B	62	28693
Boron	ND	mg/kg-dry		5		SW6010B	04/21/15 18:12 / sld	04/20/15 08:23	ICP2-HE_150421B	62	28693
Cadmium	3.5	mg/kg-dry		0.3		SW6020	04/22/15 12:46 / dck	04/20/15 08:23	ICPMS204-B_150422A	39	28693
Chromium	12	mg/kg-dry		5		SW6020	04/22/15 12:46 / dck	04/20/15 08:23	ICPMS204-B_150422A	39	28693
Cobalt	7	mg/kg-dry		5		SW6020	04/22/15 12:46 / dck	04/20/15 08:23	ICPMS204-B_150422A	39	28693
Copper	208	mg/kg-dry		5		SW6010B	04/21/15 18:12 / sld	04/20/15 08:23	ICP2-HE_150421B	62	28693
Iron	21700	mg/kg-dry		6		SW6010B	04/21/15 18:12 / sld	04/20/15 08:23	ICP2-HE_150421B	62	28693
Lead	100	mg/kg-dry		5		SW6020	04/22/15 12:46 / dck	04/20/15 08:23	ICPMS204-B_150422A	39	28693
Manganese	1320	mg/kg-dry		5		SW6010B	04/21/15 18:12 / sld	04/20/15 08:23	ICP2-HE_150421B	62	28693
Molybdenum	ND	mg/kg-dry		5		SW6020	04/22/15 12:46 / dck	04/20/15 08:23	ICPMS204-B_150422A	39	28693
Nickel	5	mg/kg-dry		5		SW6010B	04/21/15 18:12 / sld	04/20/15 08:23	ICP2-HE_150421B	62	28693
Selenium	ND	mg/kg-dry		5		SW6020	04/22/15 12:46 / dck	04/20/15 08:23	ICPMS204-B_150422A	39	28693
Silver	ND	mg/kg-dry		5		SW6020	04/22/15 12:46 / dck	04/20/15 08:23	ICPMS204-B_150422A	39	28693
Uranium	ND	mg/kg-dry		5		SW6020	04/22/15 12:46 / dck	04/20/15 08:23	ICPMS204-B_150422A	39	28693
Vanadium	48	mg/kg-dry		1		SW6010B	04/21/15 18:12 / sld	04/20/15 08:23	ICP2-HE_150421B	62	28693
Zinc	616	mg/kg-dry		5		SW6010B	04/21/15 18:12 / sld	04/20/15 08:23	ICP2-HE_150421B	62	28693
METALS, TOTAL											
Mercury	0.29	mg/kg-dry		0.10		SW7471B	04/15/15 11:10 / rgk	04/14/15 09:57	HGCV201-H_150415A	29	28653

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-10A Duplicate 1 Sediment Sieve 1-2mm
Collection Date: 03/27/15 12:00
DateReceived: 03/30/15
Lab ID: H15030394-031
Report Date: 04/27/15
Revised Date: 04/29/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	5.3	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	15	R105684
PHYSICAL CHARACTERISTICS											
Moisture	33.2	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	17	R105653
3050 EXTRACTABLE METALS											
Aluminum	17800	mg/kg-dry		5		SW6010B	04/20/15 13:03 / sld	04/16/15 16:48	ICP2-HE_150420B	31	28681
Antimony	ND	mg/kg-dry		5		SW6020	04/20/15 23:24 / sld	04/16/15 16:48	ICPMS204-B_150420B	30	28681
Arsenic	9	mg/kg-dry		5		SW6020	04/20/15 23:24 / sld	04/16/15 16:48	ICPMS204-B_150420B	30	28681
Barium	178	mg/kg-dry		5		SW6010B	04/20/15 13:03 / sld	04/16/15 16:48	ICP2-HE_150420B	31	28681
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 13:03 / sld	04/16/15 16:48	ICP2-HE_150420B	31	28681
Boron	ND	mg/kg-dry		5		SW6010B	04/20/15 13:03 / sld	04/16/15 16:48	ICP2-HE_150420B	31	28681
Cadmium	0.9	mg/kg-dry		0.2		SW6020	04/22/15 11:50 / dck	04/16/15 16:48	ICPMS204-B_150422A	21	28681
Chromium	6	mg/kg-dry		5		SW6020	04/20/15 23:24 / sld	04/16/15 16:48	ICPMS204-B_150420B	30	28681
Cobalt	ND	mg/kg-dry		5		SW6020	04/20/15 23:24 / sld	04/16/15 16:48	ICPMS204-B_150420B	30	28681
Copper	53	mg/kg-dry		5		SW6010B	04/20/15 13:03 / sld	04/16/15 16:48	ICP2-HE_150420B	31	28681
Iron	13000	mg/kg-dry		5		SW6010B	04/20/15 13:03 / sld	04/16/15 16:48	ICP2-HE_150420B	31	28681
Lead	34	mg/kg-dry		5		SW6020	04/20/15 23:24 / sld	04/16/15 16:48	ICPMS204-B_150420B	30	28681
Manganese	961	mg/kg-dry		5		SW6010B	04/20/15 13:03 / sld	04/16/15 16:48	ICP2-HE_150420B	31	28681
Molybdenum	ND	mg/kg-dry		5		SW6020	04/20/15 23:24 / sld	04/16/15 16:48	ICPMS204-B_150420B	30	28681
Nickel	ND	mg/kg-dry		5		SW6010B	04/20/15 13:03 / sld	04/16/15 16:48	ICP2-HE_150420B	31	28681
Selenium	ND	mg/kg-dry		5		SW6020	04/20/15 23:24 / sld	04/16/15 16:48	ICPMS204-B_150420B	30	28681
Silver	ND	mg/kg-dry		5		SW6020	04/20/15 23:24 / sld	04/16/15 16:48	ICPMS204-B_150420B	30	28681
Uranium	ND	mg/kg-dry		5		SW6020	04/20/15 23:24 / sld	04/16/15 16:48	ICPMS204-B_150420B	30	28681
Vanadium	15	mg/kg-dry		1		SW6010B	04/20/15 13:03 / sld	04/16/15 16:48	ICP2-HE_150420B	31	28681
Zinc	208	mg/kg-dry		5		SW6010B	04/20/15 13:03 / sld	04/16/15 16:48	ICP2-HE_150420B	31	28681
METALS, TOTAL											
Mercury	0.28	mg/kg-dry		0.10		SW7471B	04/15/15 11:12 / rgk	04/14/15 09:57	HGCV201-H_150415A	30	28653

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-10A Duplicate 2 Sediment Sieve <0.065mm
Collection Date: 03/27/15 12:00
DateReceived: 03/30/15
Lab ID: H15030394-032
Report Date: 04/27/15
Revised Date: 04/29/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	11.4	wt% Passed		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	16	R105684
PHYSICAL CHARACTERISTICS											
Moisture	69.0	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	18	R105653
3050 EXTRACTABLE METALS											
Aluminum	29700	mg/kg-dry		10		SW6010B	04/20/15 15:02 / sld	04/16/15 15:33	ICP2-HE_150420B	63	28680
Antimony	ND	mg/kg-dry		5		SW6020	04/21/15 01:00 / sld	04/16/15 15:33	ICPMS204-B_150420B	60	28680
Arsenic	49	mg/kg-dry		5		SW6020	04/21/15 01:00 / sld	04/16/15 15:33	ICPMS204-B_150420B	60	28680
Barium	356	mg/kg-dry		5		SW6010B	04/20/15 15:02 / sld	04/16/15 15:33	ICP2-HE_150420B	63	28680
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 15:02 / sld	04/16/15 15:33	ICP2-HE_150420B	63	28680
Boron	12	mg/kg-dry		5		SW6010B	04/20/15 15:02 / sld	04/16/15 15:33	ICP2-HE_150420B	63	28680
Cadmium	12	mg/kg-dry	D	2		SW6020	04/21/15 01:00 / sld	04/16/15 15:33	ICPMS204-B_150420B	60	28680
Chromium	27	mg/kg-dry		5		SW6020	04/21/15 01:00 / sld	04/16/15 15:33	ICPMS204-B_150420B	60	28680
Cobalt	16	mg/kg-dry		5		SW6020	04/21/15 01:00 / sld	04/16/15 15:33	ICPMS204-B_150420B	60	28680
Copper	644	mg/kg-dry		5		SW6010B	04/20/15 15:02 / sld	04/16/15 15:33	ICP2-HE_150420B	63	28680
Iron	28400	mg/kg-dry		9		SW6010B	04/20/15 15:02 / sld	04/16/15 15:33	ICP2-HE_150420B	63	28680
Lead	368	mg/kg-dry		5		SW6020	04/21/15 01:00 / sld	04/16/15 15:33	ICPMS204-B_150420B	60	28680
Manganese	2690	mg/kg-dry		5		SW6010B	04/20/15 15:02 / sld	04/16/15 15:33	ICP2-HE_150420B	63	28680
Molybdenum	8	mg/kg-dry		5		SW6020	04/21/15 01:00 / sld	04/16/15 15:33	ICPMS204-B_150420B	60	28680
Nickel	15	mg/kg-dry		5		SW6010B	04/20/15 15:02 / sld	04/16/15 15:33	ICP2-HE_150420B	63	28680
Selenium	ND	mg/kg-dry		5		SW6020	04/21/15 01:00 / sld	04/16/15 15:33	ICPMS204-B_150420B	60	28680
Silver	ND	mg/kg-dry		5		SW6020	04/21/15 01:00 / sld	04/16/15 15:33	ICPMS204-B_150420B	60	28680
Uranium	7	mg/kg-dry		5		SW6020	04/21/15 01:00 / sld	04/16/15 15:33	ICPMS204-B_150420B	60	28680
Vanadium	50	mg/kg-dry		2		SW6010B	04/20/15 15:02 / sld	04/16/15 15:33	ICP2-HE_150420B	63	28680
Zinc	1990	mg/kg-dry		5		SW6010B	04/20/15 15:02 / sld	04/16/15 15:33	ICP2-HE_150420B	63	28680
METALS, TOTAL											
Mercury	0.95	mg/kg-dry		0.10		SW7471B	04/15/15 11:15 / rgk	04/14/15 09:57	HGCV201-H_150415A	31	28653

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-10A Duplicate 2 Sediment Sieve 0.065-1mm
Collection Date: 03/27/15 12:00
DateReceived: 03/30/15
Lab ID: H15030394-033
Report Date: 04/27/15
Revised Date: 04/29/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	22.2	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	17	R105684
PHYSICAL CHARACTERISTICS											
Moisture	40.8	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	19	R105653
3050 EXTRACTABLE METALS											
Aluminum	18500	mg/kg-dry		6		SW6010B	04/21/15 18:16 / sld	04/20/15 08:23	ICP2-HE_150421B	63	28693
Antimony	ND	mg/kg-dry		5		SW6020	04/22/15 12:49 / dck	04/20/15 08:23	ICPMS204-B_150422A	40	28693
Arsenic	17	mg/kg-dry		5		SW6020	04/22/15 12:49 / dck	04/20/15 08:23	ICPMS204-B_150422A	40	28693
Barium	238	mg/kg-dry		5		SW6020	04/22/15 12:49 / dck	04/20/15 08:23	ICPMS204-B_150422A	40	28693
Beryllium	ND	mg/kg-dry		5		SW6010B	04/21/15 18:16 / sld	04/20/15 08:23	ICP2-HE_150421B	63	28693
Boron	5	mg/kg-dry		5		SW6010B	04/21/15 18:16 / sld	04/20/15 08:23	ICP2-HE_150421B	63	28693
Cadmium	3.2	mg/kg-dry		0.3		SW6020	04/22/15 12:49 / dck	04/20/15 08:23	ICPMS204-B_150422A	40	28693
Chromium	10	mg/kg-dry		5		SW6020	04/22/15 12:49 / dck	04/20/15 08:23	ICPMS204-B_150422A	40	28693
Cobalt	7	mg/kg-dry		5		SW6020	04/22/15 12:49 / dck	04/20/15 08:23	ICPMS204-B_150422A	40	28693
Copper	190	mg/kg-dry		5		SW6010B	04/21/15 18:16 / sld	04/20/15 08:23	ICP2-HE_150421B	63	28693
Iron	18600	mg/kg-dry		5		SW6010B	04/21/15 18:16 / sld	04/20/15 08:23	ICP2-HE_150421B	63	28693
Lead	114	mg/kg-dry		5		SW6020	04/22/15 12:49 / dck	04/20/15 08:23	ICPMS204-B_150422A	40	28693
Manganese	1220	mg/kg-dry		5		SW6010B	04/21/15 18:16 / sld	04/20/15 08:23	ICP2-HE_150421B	63	28693
Molybdenum	ND	mg/kg-dry		5		SW6020	04/22/15 12:49 / dck	04/20/15 08:23	ICPMS204-B_150422A	40	28693
Nickel	ND	mg/kg-dry		5		SW6010B	04/21/15 18:16 / sld	04/20/15 08:23	ICP2-HE_150421B	63	28693
Selenium	ND	mg/kg-dry		5		SW6020	04/22/15 12:49 / dck	04/20/15 08:23	ICPMS204-B_150422A	40	28693
Silver	ND	mg/kg-dry		5		SW6020	04/22/15 12:49 / dck	04/20/15 08:23	ICPMS204-B_150422A	40	28693
Uranium	ND	mg/kg-dry		5		SW6020	04/22/15 12:49 / dck	04/20/15 08:23	ICPMS204-B_150422A	40	28693
Vanadium	34	mg/kg-dry		1		SW6010B	04/21/15 18:16 / sld	04/20/15 08:23	ICP2-HE_150421B	63	28693
Zinc	557	mg/kg-dry		5		SW6010B	04/21/15 18:16 / sld	04/20/15 08:23	ICP2-HE_150421B	63	28693
METALS, TOTAL											
Mercury	0.39	mg/kg-dry		0.10		SW7471B	04/15/15 11:17 / rgk	04/14/15 09:57	HGCV201-H_150415A	32	28653

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-10A Duplicate 2 Sediment Sieve 1-2mm
Collection Date: 03/27/15 12:00
DateReceived: 03/30/15
Lab ID: H15030394-034
Report Date: 04/27/15
Revised Date: 04/29/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	15.8	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	18	R105684
PHYSICAL CHARACTERISTICS											
Moisture	42.3	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	21	R105653
3050 EXTRACTABLE METALS											
Aluminum	27800	mg/kg-dry		6		SW6010B	04/20/15 13:07 / sld	04/16/15 16:48	ICP2-HE_150420B	32	28681
Antimony	ND	mg/kg-dry		5		SW6020	04/20/15 23:27 / sld	04/16/15 16:48	ICPMS204-B_150420B	31	28681
Arsenic	17	mg/kg-dry		5		SW6020	04/20/15 23:27 / sld	04/16/15 16:48	ICPMS204-B_150420B	31	28681
Barium	274	mg/kg-dry		5		SW6010B	04/20/15 13:07 / sld	04/16/15 16:48	ICP2-HE_150420B	32	28681
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 13:07 / sld	04/16/15 16:48	ICP2-HE_150420B	32	28681
Boron	6	mg/kg-dry		5		SW6010B	04/20/15 13:07 / sld	04/16/15 16:48	ICP2-HE_150420B	32	28681
Cadmium	1.5	mg/kg-dry		0.3		SW6020	04/22/15 11:53 / dck	04/16/15 16:48	ICPMS204-B_150422A	22	28681
Chromium	6	mg/kg-dry		5		SW6020	04/20/15 23:27 / sld	04/16/15 16:48	ICPMS204-B_150420B	31	28681
Cobalt	7	mg/kg-dry		5		SW6020	04/20/15 23:27 / sld	04/16/15 16:48	ICPMS204-B_150420B	31	28681
Copper	97	mg/kg-dry		5		SW6010B	04/20/15 13:07 / sld	04/16/15 16:48	ICP2-HE_150420B	32	28681
Iron	19000	mg/kg-dry		5		SW6010B	04/20/15 13:07 / sld	04/16/15 16:48	ICP2-HE_150420B	32	28681
Lead	37	mg/kg-dry		5		SW6020	04/20/15 23:27 / sld	04/16/15 16:48	ICPMS204-B_150420B	31	28681
Manganese	1410	mg/kg-dry		5		SW6010B	04/20/15 13:07 / sld	04/16/15 16:48	ICP2-HE_150420B	32	28681
Molybdenum	ND	mg/kg-dry		5		SW6020	04/20/15 23:27 / sld	04/16/15 16:48	ICPMS204-B_150420B	31	28681
Nickel	ND	mg/kg-dry		5		SW6010B	04/20/15 13:07 / sld	04/16/15 16:48	ICP2-HE_150420B	32	28681
Selenium	ND	mg/kg-dry		5		SW6020	04/20/15 23:27 / sld	04/16/15 16:48	ICPMS204-B_150420B	31	28681
Silver	ND	mg/kg-dry		5		SW6020	04/20/15 23:27 / sld	04/16/15 16:48	ICPMS204-B_150420B	31	28681
Uranium	ND	mg/kg-dry		5		SW6020	04/20/15 23:27 / sld	04/16/15 16:48	ICPMS204-B_150420B	31	28681
Vanadium	18	mg/kg-dry		1		SW6010B	04/20/15 13:07 / sld	04/16/15 16:48	ICP2-HE_150420B	32	28681
Zinc	284	mg/kg-dry		5		SW6010B	04/20/15 13:07 / sld	04/16/15 16:48	ICP2-HE_150420B	32	28681
METALS, TOTAL											
Mercury	0.38	mg/kg-dry		0.10		SW7471B	04/22/15 14:05 / rgk	04/20/15 08:42	HGCV201-H_150422B	13	28695

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B Sediment Sieve <0.065mm
Lab ID: H15030394-035
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 11:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	8.9	wt% Passed		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	19	R105684
PHYSICAL CHARACTERISTICS											
Moisture	61.0	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	22	R105653
3050 EXTRACTABLE METALS											
Aluminum	28100	mg/kg-dry		9		SW6010B	04/20/15 15:06 / sld	04/16/15 15:33	ICP2-HE_150420B	64	28680
Antimony	ND	mg/kg-dry		5		SW6020	04/21/15 01:03 / sld	04/16/15 15:33	ICPMS204-B_150420B	61	28680
Arsenic	44	mg/kg-dry		5		SW6020	04/21/15 01:03 / sld	04/16/15 15:33	ICPMS204-B_150420B	61	28680
Barium	352	mg/kg-dry		5		SW6010B	04/20/15 15:06 / sld	04/16/15 15:33	ICP2-HE_150420B	64	28680
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 15:06 / sld	04/16/15 15:33	ICP2-HE_150420B	64	28680
Boron	12	mg/kg-dry		5		SW6010B	04/20/15 15:06 / sld	04/16/15 15:33	ICP2-HE_150420B	64	28680
Cadmium	10	mg/kg-dry	D	2		SW6020	04/21/15 01:03 / sld	04/16/15 15:33	ICPMS204-B_150420B	61	28680
Chromium	28	mg/kg-dry		5		SW6020	04/21/15 01:03 / sld	04/16/15 15:33	ICPMS204-B_150420B	61	28680
Cobalt	11	mg/kg-dry		5		SW6020	04/21/15 01:03 / sld	04/16/15 15:33	ICPMS204-B_150420B	61	28680
Copper	670	mg/kg-dry		5		SW6010B	04/20/15 15:06 / sld	04/16/15 15:33	ICP2-HE_150420B	64	28680
Iron	28000	mg/kg-dry		8		SW6010B	04/20/15 15:06 / sld	04/16/15 15:33	ICP2-HE_150420B	64	28680
Lead	246	mg/kg-dry		5		SW6020	04/21/15 01:03 / sld	04/16/15 15:33	ICPMS204-B_150420B	61	28680
Manganese	1670	mg/kg-dry		5		SW6010B	04/20/15 15:06 / sld	04/16/15 15:33	ICP2-HE_150420B	64	28680
Molybdenum	9	mg/kg-dry		5		SW6020	04/21/15 01:03 / sld	04/16/15 15:33	ICPMS204-B_150420B	61	28680
Nickel	15	mg/kg-dry		5		SW6010B	04/20/15 15:06 / sld	04/16/15 15:33	ICP2-HE_150420B	64	28680
Selenium	ND	mg/kg-dry		5		SW6020	04/21/15 01:03 / sld	04/16/15 15:33	ICPMS204-B_150420B	61	28680
Silver	ND	mg/kg-dry		5		SW6020	04/21/15 01:03 / sld	04/16/15 15:33	ICPMS204-B_150420B	61	28680
Uranium	6	mg/kg-dry		5		SW6020	04/21/15 01:03 / sld	04/16/15 15:33	ICPMS204-B_150420B	61	28680
Vanadium	48	mg/kg-dry		2		SW6010B	04/20/15 15:06 / sld	04/16/15 15:33	ICP2-HE_150420B	64	28680
Zinc	1540	mg/kg-dry		5		SW6010B	04/20/15 15:06 / sld	04/16/15 15:33	ICP2-HE_150420B	64	28680
METALS, TOTAL											
Mercury	0.83	mg/kg-dry		0.10		SW7471B	04/22/15 14:07 / rgk	04/20/15 08:42	HGCV201-H_150422B	14	28695

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B Sediment Sieve 0.065-1mm
Lab ID: H15030394-036
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 11:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	43.3	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	20	R105684
PHYSICAL CHARACTERISTICS											
Moisture	39.5	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	23	R105653
3050 EXTRACTABLE METALS											
Aluminum	11300	mg/kg-dry		5		SW6010B	04/21/15 18:20 / sld	04/20/15 08:23	ICP2-HE_150421B	64	28693
Antimony	ND	mg/kg-dry		5		SW6020	04/22/15 12:52 / dck	04/20/15 08:23	ICPMS204-B_150422A	41	28693
Arsenic	11	mg/kg-dry		5		SW6020	04/22/15 12:52 / dck	04/20/15 08:23	ICPMS204-B_150422A	41	28693
Barium	151	mg/kg-dry		5		SW6020	04/22/15 12:52 / dck	04/20/15 08:23	ICPMS204-B_150422A	41	28693
Beryllium	ND	mg/kg-dry		5		SW6010B	04/21/15 18:20 / sld	04/20/15 08:23	ICP2-HE_150421B	64	28693
Boron	ND	mg/kg-dry		5		SW6010B	04/21/15 18:20 / sld	04/20/15 08:23	ICP2-HE_150421B	64	28693
Cadmium	3.2	mg/kg-dry		0.3		SW6020	04/22/15 12:52 / dck	04/20/15 08:23	ICPMS204-B_150422A	41	28693
Chromium	15	mg/kg-dry		5		SW6020	04/22/15 12:52 / dck	04/20/15 08:23	ICPMS204-B_150422A	41	28693
Cobalt	6	mg/kg-dry		5		SW6020	04/22/15 12:52 / dck	04/20/15 08:23	ICPMS204-B_150422A	41	28693
Copper	200	mg/kg-dry		5		SW6010B	04/21/15 18:20 / sld	04/20/15 08:23	ICP2-HE_150421B	64	28693
Iron	22200	mg/kg-dry		5		SW6010B	04/21/15 18:20 / sld	04/20/15 08:23	ICP2-HE_150421B	64	28693
Lead	58	mg/kg-dry		5		SW6020	04/22/15 12:52 / dck	04/20/15 08:23	ICPMS204-B_150422A	41	28693
Manganese	619	mg/kg-dry		5		SW6010B	04/21/15 18:20 / sld	04/20/15 08:23	ICP2-HE_150421B	64	28693
Molybdenum	ND	mg/kg-dry		5		SW6020	04/22/15 12:52 / dck	04/20/15 08:23	ICPMS204-B_150422A	41	28693
Nickel	ND	mg/kg-dry		5		SW6010B	04/21/15 18:20 / sld	04/20/15 08:23	ICP2-HE_150421B	64	28693
Selenium	ND	mg/kg-dry		5		SW6020	04/22/15 12:52 / dck	04/20/15 08:23	ICPMS204-B_150422A	41	28693
Silver	ND	mg/kg-dry		5		SW6020	04/22/15 12:52 / dck	04/20/15 08:23	ICPMS204-B_150422A	41	28693
Uranium	ND	mg/kg-dry		5		SW6020	04/22/15 12:52 / dck	04/20/15 08:23	ICPMS204-B_150422A	41	28693
Vanadium	56	mg/kg-dry		1		SW6010B	04/21/15 18:20 / sld	04/20/15 08:23	ICP2-HE_150421B	64	28693
Zinc	471	mg/kg-dry		5		SW6010B	04/21/15 18:20 / sld	04/20/15 08:23	ICP2-HE_150421B	64	28693
METALS, TOTAL											
Mercury	0.17	mg/kg-dry		0.10		SW7471B	04/22/15 14:17 / rgk	04/20/15 08:42	HGCV201-H_150422B	18	28695

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B Sediment Sieve 1-2mm
Lab ID: H15030394-037
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 11:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	10.6	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	21	R105684
PHYSICAL CHARACTERISTICS											
Moisture	28.0	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	24	R105653
3050 EXTRACTABLE METALS											
Aluminum	5820	mg/kg-dry		5		SW6010B	04/20/15 13:11 / sld	04/16/15 16:48	ICP2-HE_150420B	33	28681
Antimony	ND	mg/kg-dry		5		SW6020	04/20/15 23:31 / sld	04/16/15 16:48	ICPMS204-B_150420B	32	28681
Arsenic	ND	mg/kg-dry		5		SW6020	04/20/15 23:31 / sld	04/16/15 16:48	ICPMS204-B_150420B	32	28681
Barium	59	mg/kg-dry		5		SW6010B	04/20/15 13:11 / sld	04/16/15 16:48	ICP2-HE_150420B	33	28681
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 13:11 / sld	04/16/15 16:48	ICP2-HE_150420B	33	28681
Boron	ND	mg/kg-dry		5		SW6010B	04/20/15 13:11 / sld	04/16/15 16:48	ICP2-HE_150420B	33	28681
Cadmium	0.8	mg/kg-dry		0.2		SW6020	04/22/15 11:56 / dck	04/16/15 16:48	ICPMS204-B_150422A	23	28681
Chromium	ND	mg/kg-dry		5		SW6020	04/20/15 23:31 / sld	04/16/15 16:48	ICPMS204-B_150420B	32	28681
Cobalt	ND	mg/kg-dry		5		SW6020	04/20/15 23:31 / sld	04/16/15 16:48	ICPMS204-B_150420B	32	28681
Copper	43	mg/kg-dry		5		SW6010B	04/20/15 13:11 / sld	04/16/15 16:48	ICP2-HE_150420B	33	28681
Iron	6670	mg/kg-dry		5		SW6010B	04/20/15 13:11 / sld	04/16/15 16:48	ICP2-HE_150420B	33	28681
Lead	16	mg/kg-dry		5		SW6020	04/20/15 23:31 / sld	04/16/15 16:48	ICPMS204-B_150420B	32	28681
Manganese	271	mg/kg-dry		5		SW6010B	04/20/15 13:11 / sld	04/16/15 16:48	ICP2-HE_150420B	33	28681
Molybdenum	ND	mg/kg-dry		5		SW6020	04/20/15 23:31 / sld	04/16/15 16:48	ICPMS204-B_150420B	32	28681
Nickel	ND	mg/kg-dry		5		SW6010B	04/20/15 13:11 / sld	04/16/15 16:48	ICP2-HE_150420B	33	28681
Selenium	ND	mg/kg-dry		5		SW6020	04/20/15 23:31 / sld	04/16/15 16:48	ICPMS204-B_150420B	32	28681
Silver	ND	mg/kg-dry		5		SW6020	04/20/15 23:31 / sld	04/16/15 16:48	ICPMS204-B_150420B	32	28681
Uranium	ND	mg/kg-dry		5		SW6020	04/20/15 23:31 / sld	04/16/15 16:48	ICPMS204-B_150420B	32	28681
Vanadium	11	mg/kg-dry		1		SW6010B	04/20/15 13:11 / sld	04/16/15 16:48	ICP2-HE_150420B	33	28681
Zinc	121	mg/kg-dry		5		SW6010B	04/20/15 13:11 / sld	04/16/15 16:48	ICP2-HE_150420B	33	28681
METALS, TOTAL											
Mercury	0.39	mg/kg-dry		0.10		SW7471B	04/22/15 14:19 / rgk	04/20/15 08:42	HGCV201-H_150422B	19	28695

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C Sediment Sieve <0.065mm
Lab ID: H15030394-038
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 10:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	4.6	wt% Passed		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	22	R105684
PHYSICAL CHARACTERISTICS											
Moisture	65.0	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	25	R105653
3050 EXTRACTABLE METALS											
Aluminum	22000	mg/kg-dry		10		SW6010B	04/20/15 15:10 / sld	04/16/15 15:33	ICP2-HE_150420B	65	28680
Antimony	ND	mg/kg-dry		5		SW6020	04/21/15 01:06 / sld	04/16/15 15:33	ICPMS204-B_150420B	62	28680
Arsenic	38	mg/kg-dry		5		SW6020	04/21/15 01:06 / sld	04/16/15 15:33	ICPMS204-B_150420B	62	28680
Barium	342	mg/kg-dry		5		SW6010B	04/20/15 15:10 / sld	04/16/15 15:33	ICP2-HE_150420B	65	28680
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 15:10 / sld	04/16/15 15:33	ICP2-HE_150420B	65	28680
Boron	14	mg/kg-dry		5		SW6010B	04/20/15 15:10 / sld	04/16/15 15:33	ICP2-HE_150420B	65	28680
Cadmium	9	mg/kg-dry	D	2		SW6020	04/21/15 01:06 / sld	04/16/15 15:33	ICPMS204-B_150420B	62	28680
Chromium	27	mg/kg-dry		5		SW6020	04/21/15 01:06 / sld	04/16/15 15:33	ICPMS204-B_150420B	62	28680
Cobalt	12	mg/kg-dry		5		SW6020	04/21/15 01:06 / sld	04/16/15 15:33	ICPMS204-B_150420B	62	28680
Copper	656	mg/kg-dry		5		SW6010B	04/20/15 15:10 / sld	04/16/15 15:33	ICP2-HE_150420B	65	28680
Iron	24000	mg/kg-dry		9		SW6010B	04/20/15 15:10 / sld	04/16/15 15:33	ICP2-HE_150420B	65	28680
Lead	212	mg/kg-dry		5		SW6020	04/21/15 01:06 / sld	04/16/15 15:33	ICPMS204-B_150420B	62	28680
Manganese	2250	mg/kg-dry		5		SW6010B	04/20/15 15:10 / sld	04/16/15 15:33	ICP2-HE_150420B	65	28680
Molybdenum	7	mg/kg-dry		5		SW6020	04/21/15 01:06 / sld	04/16/15 15:33	ICPMS204-B_150420B	62	28680
Nickel	16	mg/kg-dry		5		SW6010B	04/20/15 15:10 / sld	04/16/15 15:33	ICP2-HE_150420B	65	28680
Selenium	ND	mg/kg-dry		5		SW6020	04/21/15 01:06 / sld	04/16/15 15:33	ICPMS204-B_150420B	62	28680
Silver	ND	mg/kg-dry		5		SW6020	04/21/15 01:06 / sld	04/16/15 15:33	ICPMS204-B_150420B	62	28680
Uranium	8	mg/kg-dry		5		SW6020	04/21/15 01:06 / sld	04/16/15 15:33	ICPMS204-B_150420B	62	28680
Vanadium	57	mg/kg-dry		2		SW6010B	04/20/15 15:10 / sld	04/16/15 15:33	ICP2-HE_150420B	65	28680
Zinc	1480	mg/kg-dry		5		SW6010B	04/20/15 15:10 / sld	04/16/15 15:33	ICP2-HE_150420B	65	28680
METALS, TOTAL											
Mercury	0.68	mg/kg-dry		0.10		SW7471B	04/22/15 14:22 / rgk	04/20/15 08:42	HGCV201-H_150422B	20	28695

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C Sediment Sieve 0.065-1mm
Lab ID: H15030394-039
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 10:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	20.7	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	23	R105684
PHYSICAL CHARACTERISTICS											
Moisture	34.2	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	26	R105653
3050 EXTRACTABLE METALS											
Aluminum	5730	mg/kg-dry		5		SW6010B	04/21/15 18:24 / sld	04/20/15 08:23	ICP2-HE_150421B	65	28693
Antimony	ND	mg/kg-dry		5		SW6020	04/22/15 12:55 / dck	04/20/15 08:23	ICPMS204-B_150422A	42	28693
Arsenic	8	mg/kg-dry		5		SW6020	04/22/15 12:55 / dck	04/20/15 08:23	ICPMS204-B_150422A	42	28693
Barium	104	mg/kg-dry		5		SW6020	04/22/15 12:55 / dck	04/20/15 08:23	ICPMS204-B_150422A	42	28693
Beryllium	ND	mg/kg-dry		5		SW6010B	04/21/15 18:24 / sld	04/20/15 08:23	ICP2-HE_150421B	65	28693
Boron	ND	mg/kg-dry		5		SW6010B	04/21/15 18:24 / sld	04/20/15 08:23	ICP2-HE_150421B	65	28693
Cadmium	1.6	mg/kg-dry		0.3		SW6020	04/22/15 12:55 / dck	04/20/15 08:23	ICPMS204-B_150422A	42	28693
Chromium	25	mg/kg-dry		5		SW6020	04/22/15 12:55 / dck	04/20/15 08:23	ICPMS204-B_150422A	42	28693
Cobalt	5	mg/kg-dry		5		SW6020	04/22/15 12:55 / dck	04/20/15 08:23	ICPMS204-B_150422A	42	28693
Copper	90	mg/kg-dry		5		SW6010B	04/21/15 18:24 / sld	04/20/15 08:23	ICP2-HE_150421B	65	28693
Iron	36500	mg/kg-dry		5		SW6010B	04/21/15 18:24 / sld	04/20/15 08:23	ICP2-HE_150421B	65	28693
Lead	25	mg/kg-dry		5		SW6020	04/22/15 12:55 / dck	04/20/15 08:23	ICPMS204-B_150422A	42	28693
Manganese	433	mg/kg-dry		5		SW6010B	04/21/15 18:24 / sld	04/20/15 08:23	ICP2-HE_150421B	65	28693
Molybdenum	ND	mg/kg-dry		5		SW6020	04/22/15 12:55 / dck	04/20/15 08:23	ICPMS204-B_150422A	42	28693
Nickel	6	mg/kg-dry		5		SW6010B	04/21/15 18:24 / sld	04/20/15 08:23	ICP2-HE_150421B	65	28693
Selenium	ND	mg/kg-dry		5		SW6020	04/22/15 12:55 / dck	04/20/15 08:23	ICPMS204-B_150422A	42	28693
Silver	ND	mg/kg-dry		5		SW6020	04/22/15 12:55 / dck	04/20/15 08:23	ICPMS204-B_150422A	42	28693
Uranium	ND	mg/kg-dry		5		SW6020	04/22/15 12:55 / dck	04/20/15 08:23	ICPMS204-B_150422A	42	28693
Vanadium	118	mg/kg-dry		1		SW6010B	04/21/15 18:24 / sld	04/20/15 08:23	ICP2-HE_150421B	65	28693
Zinc	210	mg/kg-dry		5		SW6010B	04/21/15 18:24 / sld	04/20/15 08:23	ICP2-HE_150421B	65	28693
METALS, TOTAL											
Mercury	0.10	mg/kg-dry		0.10		SW7471B	04/22/15 14:24 / rgk	04/20/15 08:42	HGCV201-H_150422B	21	28695

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C Sediment Sieve 1-2mm
Lab ID: H15030394-040
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 10:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	11.4	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	24	R105684
PHYSICAL CHARACTERISTICS											
Moisture	18.9	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	27	R105653
3050 EXTRACTABLE METALS											
Aluminum	5330	mg/kg-dry		5		SW6010B	04/20/15 13:14 / sld	04/16/15 16:48	ICP2-HE_150420B	34	28681
Antimony	ND	mg/kg-dry		5		SW6020	04/20/15 23:34 / sld	04/16/15 16:48	ICPMS204-B_150420B	33	28681
Arsenic	6	mg/kg-dry		5		SW6020	04/20/15 23:34 / sld	04/16/15 16:48	ICPMS204-B_150420B	33	28681
Barium	79	mg/kg-dry		5		SW6010B	04/20/15 13:14 / sld	04/16/15 16:48	ICP2-HE_150420B	34	28681
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 13:14 / sld	04/16/15 16:48	ICP2-HE_150420B	34	28681
Boron	ND	mg/kg-dry		5		SW6010B	04/20/15 13:14 / sld	04/16/15 16:48	ICP2-HE_150420B	34	28681
Cadmium	0.7	mg/kg-dry		0.2		SW6020	04/22/15 11:59 / dck	04/16/15 16:48	ICPMS204-B_150422A	24	28681
Chromium	9	mg/kg-dry		5		SW6020	04/20/15 23:34 / sld	04/16/15 16:48	ICPMS204-B_150420B	33	28681
Cobalt	ND	mg/kg-dry		5		SW6020	04/20/15 23:34 / sld	04/16/15 16:48	ICPMS204-B_150420B	33	28681
Copper	37	mg/kg-dry		5		SW6010B	04/20/15 13:14 / sld	04/16/15 16:48	ICP2-HE_150420B	34	28681
Iron	10000	mg/kg-dry		5		SW6010B	04/20/15 13:14 / sld	04/16/15 16:48	ICP2-HE_150420B	34	28681
Lead	13	mg/kg-dry		5		SW6020	04/20/15 23:34 / sld	04/16/15 16:48	ICPMS204-B_150420B	33	28681
Manganese	275	mg/kg-dry		5		SW6010B	04/20/15 13:14 / sld	04/16/15 16:48	ICP2-HE_150420B	34	28681
Molybdenum	ND	mg/kg-dry		5		SW6020	04/20/15 23:34 / sld	04/16/15 16:48	ICPMS204-B_150420B	33	28681
Nickel	ND	mg/kg-dry		5		SW6010B	04/20/15 13:14 / sld	04/16/15 16:48	ICP2-HE_150420B	34	28681
Selenium	ND	mg/kg-dry		5		SW6020	04/20/15 23:34 / sld	04/16/15 16:48	ICPMS204-B_150420B	33	28681
Silver	ND	mg/kg-dry		5		SW6020	04/20/15 23:34 / sld	04/16/15 16:48	ICPMS204-B_150420B	33	28681
Uranium	ND	mg/kg-dry		5		SW6020	04/20/15 23:34 / sld	04/16/15 16:48	ICPMS204-B_150420B	33	28681
Vanadium	27	mg/kg-dry		1		SW6010B	04/20/15 13:14 / sld	04/16/15 16:48	ICP2-HE_150420B	34	28681
Zinc	105	mg/kg-dry		5		SW6010B	04/20/15 13:14 / sld	04/16/15 16:48	ICP2-HE_150420B	34	28681
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/22/15 14:27 / rgk	04/20/15 08:42	HGCV201-H_150422B	22	28695

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D Sediment Sieve <0.065mm
Lab ID: H15030394-041
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 09:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	3.2	wt% Passed		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	: 25	R105684
PHYSICAL CHARACTERISTICS											
Moisture	63.4	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	: 28	R105653
3050 EXTRACTABLE METALS											
Aluminum	25300	mg/kg-dry		9		SW6010B	04/20/15 15:13 / sld	04/16/15 15:33	ICP2-HE_150420B	: 66	28680
Antimony	ND	mg/kg-dry		5		SW6020	04/21/15 01:09 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 63	28680
Arsenic	28	mg/kg-dry		5		SW6020	04/21/15 01:09 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 63	28680
Barium	390	mg/kg-dry		5		SW6010B	04/20/15 15:13 / sld	04/16/15 15:33	ICP2-HE_150420B	: 66	28680
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 15:13 / sld	04/16/15 15:33	ICP2-HE_150420B	: 66	28680
Boron	14	mg/kg-dry		5		SW6010B	04/20/15 15:13 / sld	04/16/15 15:33	ICP2-HE_150420B	: 66	28680
Cadmium	12	mg/kg-dry	D	2		SW6020	04/21/15 01:09 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 63	28680
Chromium	41	mg/kg-dry		5		SW6020	04/21/15 01:09 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 63	28680
Cobalt	17	mg/kg-dry		5		SW6020	04/21/15 01:09 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 63	28680
Copper	427	mg/kg-dry		5		SW6010B	04/20/15 15:13 / sld	04/16/15 15:33	ICP2-HE_150420B	: 66	28680
Iron	23500	mg/kg-dry		8		SW6010B	04/20/15 15:13 / sld	04/16/15 15:33	ICP2-HE_150420B	: 66	28680
Lead	158	mg/kg-dry		5		SW6020	04/21/15 01:09 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 63	28680
Manganese	5340	mg/kg-dry		5		SW6010B	04/20/15 15:13 / sld	04/16/15 15:33	ICP2-HE_150420B	: 66	28680
Molybdenum	ND	mg/kg-dry		5		SW6020	04/21/15 01:09 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 63	28680
Nickel	24	mg/kg-dry		5		SW6010B	04/20/15 15:13 / sld	04/16/15 15:33	ICP2-HE_150420B	: 66	28680
Selenium	ND	mg/kg-dry		5		SW6020	04/21/15 01:09 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 63	28680
Silver	ND	mg/kg-dry		5		SW6020	04/21/15 01:09 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 63	28680
Uranium	7	mg/kg-dry		5		SW6020	04/21/15 01:09 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 63	28680
Vanadium	66	mg/kg-dry		2		SW6010B	04/20/15 15:13 / sld	04/16/15 15:33	ICP2-HE_150420B	: 66	28680
Zinc	1150	mg/kg-dry		5		SW6010B	04/20/15 15:13 / sld	04/16/15 15:33	ICP2-HE_150420B	: 66	28680
METALS, TOTAL											
Mercury	0.49	mg/kg-dry		0.10		SW7471B	04/22/15 14:29 / rgk	04/20/15 08:42	HGCV201-H_150422B	: 23	28695

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D Sediment Sieve 0.065-1mm
Lab ID: H15030394-042
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 09:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	20.9	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	26	R105684
PHYSICAL CHARACTERISTICS											
Moisture	27.3	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	29	R105653
3050 EXTRACTABLE METALS											
Aluminum	4770	mg/kg-dry		5		SW6010B	04/21/15 18:27 / sld	04/20/15 08:23	ICP2-HE_150421B	66	28693
Antimony	ND	mg/kg-dry		5		SW6020	04/22/15 12:58 / dck	04/20/15 08:23	ICPMS204-B_150422A	43	28693
Arsenic	ND	mg/kg-dry		5		SW6020	04/22/15 12:58 / dck	04/20/15 08:23	ICPMS204-B_150422A	43	28693
Barium	108	mg/kg-dry		5		SW6020	04/22/15 12:58 / dck	04/20/15 08:23	ICPMS204-B_150422A	43	28693
Beryllium	ND	mg/kg-dry		5		SW6010B	04/21/15 18:27 / sld	04/20/15 08:23	ICP2-HE_150421B	66	28693
Boron	ND	mg/kg-dry		5		SW6010B	04/21/15 18:27 / sld	04/20/15 08:23	ICP2-HE_150421B	66	28693
Cadmium	0.5	mg/kg-dry		0.2		SW6020	04/22/15 12:58 / dck	04/20/15 08:23	ICPMS204-B_150422A	43	28693
Chromium	9	mg/kg-dry		5		SW6020	04/22/15 12:58 / dck	04/20/15 08:23	ICPMS204-B_150422A	43	28693
Cobalt	ND	mg/kg-dry		5		SW6020	04/22/15 12:58 / dck	04/20/15 08:23	ICPMS204-B_150422A	43	28693
Copper	24	mg/kg-dry		5		SW6010B	04/21/15 18:27 / sld	04/20/15 08:23	ICP2-HE_150421B	66	28693
Iron	7230	mg/kg-dry		5		SW6010B	04/21/15 18:27 / sld	04/20/15 08:23	ICP2-HE_150421B	66	28693
Lead	11	mg/kg-dry		5		SW6020	04/22/15 12:58 / dck	04/20/15 08:23	ICPMS204-B_150422A	43	28693
Manganese	372	mg/kg-dry		5		SW6010B	04/21/15 18:27 / sld	04/20/15 08:23	ICP2-HE_150421B	66	28693
Molybdenum	ND	mg/kg-dry		5		SW6020	04/22/15 12:58 / dck	04/20/15 08:23	ICPMS204-B_150422A	43	28693
Nickel	ND	mg/kg-dry		5		SW6010B	04/21/15 18:27 / sld	04/20/15 08:23	ICP2-HE_150421B	66	28693
Selenium	ND	mg/kg-dry		5		SW6020	04/22/15 12:58 / dck	04/20/15 08:23	ICPMS204-B_150422A	43	28693
Silver	ND	mg/kg-dry		5		SW6020	04/22/15 12:58 / dck	04/20/15 08:23	ICPMS204-B_150422A	43	28693
Uranium	ND	mg/kg-dry		5		SW6020	04/22/15 12:58 / dck	04/20/15 08:23	ICPMS204-B_150422A	43	28693
Vanadium	17	mg/kg-dry		1		SW6010B	04/21/15 18:27 / sld	04/20/15 08:23	ICP2-HE_150421B	66	28693
Zinc	73	mg/kg-dry		5		SW6010B	04/21/15 18:27 / sld	04/20/15 08:23	ICP2-HE_150421B	66	28693
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/22/15 14:31 / rgk	04/20/15 08:42	HGCV201-H_150422B	24	28695

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D Sediment Sieve 1-2mm
Lab ID: H15030394-043
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/27/15 09:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	13.2	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	27	R105684
PHYSICAL CHARACTERISTICS											
Moisture	15.3	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	30	R105653
3050 EXTRACTABLE METALS											
Aluminum	4000	mg/kg-dry		5		SW6010B	04/20/15 13:18 / sld	04/16/15 16:48	ICP2-HE_150420B	35	28681
Antimony	ND	mg/kg-dry		5		SW6020	04/20/15 23:37 / sld	04/16/15 16:48	ICPMS204-B_150420B	34	28681
Arsenic	ND	mg/kg-dry		5		SW6020	04/20/15 23:37 / sld	04/16/15 16:48	ICPMS204-B_150420B	34	28681
Barium	72	mg/kg-dry		5		SW6010B	04/20/15 13:18 / sld	04/16/15 16:48	ICP2-HE_150420B	35	28681
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 13:18 / sld	04/16/15 16:48	ICP2-HE_150420B	35	28681
Boron	ND	mg/kg-dry		5		SW6010B	04/20/15 13:18 / sld	04/16/15 16:48	ICP2-HE_150420B	35	28681
Cadmium	0.3	mg/kg-dry		0.2		SW6020	04/22/15 12:03 / dck	04/16/15 16:48	ICPMS204-B_150422A	25	28681
Chromium	11	mg/kg-dry		5		SW6020	04/20/15 23:37 / sld	04/16/15 16:48	ICPMS204-B_150420B	34	28681
Cobalt	ND	mg/kg-dry		5		SW6020	04/20/15 23:37 / sld	04/16/15 16:48	ICPMS204-B_150420B	34	28681
Copper	12	mg/kg-dry		5		SW6010B	04/20/15 13:18 / sld	04/16/15 16:48	ICP2-HE_150420B	35	28681
Iron	5890	mg/kg-dry		5		SW6010B	04/20/15 13:18 / sld	04/16/15 16:48	ICP2-HE_150420B	35	28681
Lead	8	mg/kg-dry		5		SW6020	04/20/15 23:37 / sld	04/16/15 16:48	ICPMS204-B_150420B	34	28681
Manganese	385	mg/kg-dry		5		SW6010B	04/20/15 13:18 / sld	04/16/15 16:48	ICP2-HE_150420B	35	28681
Molybdenum	ND	mg/kg-dry		5		SW6020	04/20/15 23:37 / sld	04/16/15 16:48	ICPMS204-B_150420B	34	28681
Nickel	6	mg/kg-dry		5		SW6010B	04/20/15 13:18 / sld	04/16/15 16:48	ICP2-HE_150420B	35	28681
Selenium	ND	mg/kg-dry		5		SW6020	04/20/15 23:37 / sld	04/16/15 16:48	ICPMS204-B_150420B	34	28681
Silver	ND	mg/kg-dry		5		SW6020	04/20/15 23:37 / sld	04/16/15 16:48	ICPMS204-B_150420B	34	28681
Uranium	ND	mg/kg-dry		5		SW6020	04/20/15 23:37 / sld	04/16/15 16:48	ICPMS204-B_150420B	34	28681
Vanadium	14	mg/kg-dry		1		SW6010B	04/20/15 13:18 / sld	04/16/15 16:48	ICP2-HE_150420B	35	28681
Zinc	70	mg/kg-dry		5		SW6010B	04/20/15 13:18 / sld	04/16/15 16:48	ICP2-HE_150420B	35	28681
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/22/15 14:34 / rgk	04/20/15 08:42	HGCV201-H_150422B	25	28695

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13 Sediment Sieve <0.065mm
Lab ID: H15030394-044
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 18:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	18.2	wt% Passed		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	: 28	R105684
PHYSICAL CHARACTERISTICS											
Moisture	72.3	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	: 32	R105653
3050 EXTRACTABLE METALS											
Aluminum	20500	mg/kg-dry		10		SW6010B	04/20/15 15:17 / sld	04/16/15 15:33	ICP2-HE_150420B	: 67	28680
Antimony	ND	mg/kg-dry		5		SW6020	04/21/15 01:25 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 68	28680
Arsenic	38	mg/kg-dry		5		SW6020	04/21/15 01:25 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 68	28680
Barium	377	mg/kg-dry		5		SW6010B	04/20/15 15:17 / sld	04/16/15 15:33	ICP2-HE_150420B	: 67	28680
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 15:17 / sld	04/16/15 15:33	ICP2-HE_150420B	: 67	28680
Boron	13	mg/kg-dry		5		SW6010B	04/20/15 15:17 / sld	04/16/15 15:33	ICP2-HE_150420B	: 67	28680
Cadmium	10	mg/kg-dry	D	3		SW6020	04/21/15 01:25 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 68	28680
Chromium	39	mg/kg-dry		5		SW6020	04/21/15 01:25 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 68	28680
Cobalt	13	mg/kg-dry		5		SW6020	04/21/15 01:25 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 68	28680
Copper	570	mg/kg-dry		5		SW6010B	04/20/15 15:17 / sld	04/16/15 15:33	ICP2-HE_150420B	: 67	28680
Iron	25200	mg/kg-dry		10		SW6010B	04/20/15 15:17 / sld	04/16/15 15:33	ICP2-HE_150420B	: 67	28680
Lead	133	mg/kg-dry		5		SW6020	04/21/15 01:25 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 68	28680
Manganese	2460	mg/kg-dry		5		SW6010B	04/20/15 15:17 / sld	04/16/15 15:33	ICP2-HE_150420B	: 67	28680
Molybdenum	5	mg/kg-dry		5		SW6020	04/21/15 01:25 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 68	28680
Nickel	18	mg/kg-dry		5		SW6010B	04/20/15 15:17 / sld	04/16/15 15:33	ICP2-HE_150420B	: 67	28680
Selenium	ND	mg/kg-dry		5		SW6020	04/21/15 01:25 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 68	28680
Silver	ND	mg/kg-dry		5		SW6020	04/21/15 01:25 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 68	28680
Uranium	6	mg/kg-dry		5		SW6020	04/21/15 01:25 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 68	28680
Vanadium	60	mg/kg-dry		3		SW6010B	04/20/15 15:17 / sld	04/16/15 15:33	ICP2-HE_150420B	: 67	28680
Zinc	1890	mg/kg-dry		5		SW6010B	04/20/15 15:17 / sld	04/16/15 15:33	ICP2-HE_150420B	: 67	28680
METALS, TOTAL											
Mercury	1.0	mg/kg-dry		0.10		SW7471B	04/22/15 14:41 / rgk	04/20/15 08:42	HGCV201-H_150422B	: 28	28695

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13 Sediment Sieve 0.065-1mm
Lab ID: H15030394-045
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 18:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	36.7	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	29	R105684
PHYSICAL CHARACTERISTICS											
Moisture	28.9	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	33	R105653
3050 EXTRACTABLE METALS											
Aluminum	5510	mg/kg-dry		5		SW6010B	04/21/15 18:31 / sld	04/20/15 08:23	ICP2-HE_150421B	67	28693
Antimony	ND	mg/kg-dry		5		SW6020	04/22/15 13:01 / dck	04/20/15 08:23	ICPMS204-B_150422A	44	28693
Arsenic	7	mg/kg-dry		5		SW6020	04/22/15 13:01 / dck	04/20/15 08:23	ICPMS204-B_150422A	44	28693
Barium	159	mg/kg-dry		5		SW6020	04/22/15 13:01 / dck	04/20/15 08:23	ICPMS204-B_150422A	44	28693
Beryllium	ND	mg/kg-dry		5		SW6010B	04/21/15 18:31 / sld	04/20/15 08:23	ICP2-HE_150421B	67	28693
Boron	ND	mg/kg-dry		5		SW6010B	04/21/15 18:31 / sld	04/20/15 08:23	ICP2-HE_150421B	67	28693
Cadmium	1.1	mg/kg-dry		0.2		SW6020	04/22/15 13:01 / dck	04/20/15 08:23	ICPMS204-B_150422A	44	28693
Chromium	10	mg/kg-dry		5		SW6020	04/22/15 13:01 / dck	04/20/15 08:23	ICPMS204-B_150422A	44	28693
Cobalt	ND	mg/kg-dry		5		SW6020	04/22/15 13:01 / dck	04/20/15 08:23	ICPMS204-B_150422A	44	28693
Copper	52	mg/kg-dry		5		SW6010B	04/21/15 18:31 / sld	04/20/15 08:23	ICP2-HE_150421B	67	28693
Iron	8830	mg/kg-dry		5		SW6010B	04/21/15 18:31 / sld	04/20/15 08:23	ICP2-HE_150421B	67	28693
Lead	13	mg/kg-dry		5		SW6020	04/22/15 13:01 / dck	04/20/15 08:23	ICPMS204-B_150422A	44	28693
Manganese	353	mg/kg-dry		5		SW6010B	04/21/15 18:31 / sld	04/20/15 08:23	ICP2-HE_150421B	67	28693
Molybdenum	ND	mg/kg-dry		5		SW6020	04/22/15 13:01 / dck	04/20/15 08:23	ICPMS204-B_150422A	44	28693
Nickel	ND	mg/kg-dry		5		SW6010B	04/21/15 18:31 / sld	04/20/15 08:23	ICP2-HE_150421B	67	28693
Selenium	ND	mg/kg-dry		5		SW6020	04/22/15 13:01 / dck	04/20/15 08:23	ICPMS204-B_150422A	44	28693
Silver	ND	mg/kg-dry		5		SW6020	04/22/15 13:01 / dck	04/20/15 08:23	ICPMS204-B_150422A	44	28693
Uranium	ND	mg/kg-dry		5		SW6020	04/22/15 13:01 / dck	04/20/15 08:23	ICPMS204-B_150422A	44	28693
Vanadium	20	mg/kg-dry		1		SW6010B	04/21/15 18:31 / sld	04/20/15 08:23	ICP2-HE_150421B	67	28693
Zinc	169	mg/kg-dry		5		SW6010B	04/21/15 18:31 / sld	04/20/15 08:23	ICP2-HE_150421B	67	28693
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/22/15 14:43 / rgk	04/20/15 08:42	HGCV201-H_150422B	29	28695

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13 Sediment Sieve 1-2mm
Lab ID: H15030394-046
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 18:30
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	14.2	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	30	R105684
PHYSICAL CHARACTERISTICS											
Moisture	24.5	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	34	R105653
3050 EXTRACTABLE METALS											
Aluminum	5350	mg/kg-dry		5		SW6010B	04/20/15 13:22 / sld	04/16/15 16:48	ICP2-HE_150420B	36	28681
Antimony	ND	mg/kg-dry		5		SW6020	04/20/15 23:40 / sld	04/16/15 16:48	ICPMS204-B_150420B	35	28681
Arsenic	6	mg/kg-dry		5		SW6020	04/20/15 23:40 / sld	04/16/15 16:48	ICPMS204-B_150420B	35	28681
Barium	148	mg/kg-dry		5		SW6010B	04/20/15 13:22 / sld	04/16/15 16:48	ICP2-HE_150420B	36	28681
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 13:22 / sld	04/16/15 16:48	ICP2-HE_150420B	36	28681
Boron	ND	mg/kg-dry		5		SW6010B	04/20/15 13:22 / sld	04/16/15 16:48	ICP2-HE_150420B	36	28681
Cadmium	0.4	mg/kg-dry		0.2		SW6020	04/22/15 12:06 / dck	04/16/15 16:48	ICPMS204-B_150422A	26	28681
Chromium	11	mg/kg-dry		5		SW6020	04/20/15 23:40 / sld	04/16/15 16:48	ICPMS204-B_150420B	35	28681
Cobalt	ND	mg/kg-dry		5		SW6020	04/20/15 23:40 / sld	04/16/15 16:48	ICPMS204-B_150420B	35	28681
Copper	18	mg/kg-dry		5		SW6010B	04/20/15 13:22 / sld	04/16/15 16:48	ICP2-HE_150420B	36	28681
Iron	7210	mg/kg-dry		5		SW6010B	04/20/15 13:22 / sld	04/16/15 16:48	ICP2-HE_150420B	36	28681
Lead	8	mg/kg-dry		5		SW6020	04/20/15 23:40 / sld	04/16/15 16:48	ICPMS204-B_150420B	35	28681
Manganese	285	mg/kg-dry		5		SW6010B	04/20/15 13:22 / sld	04/16/15 16:48	ICP2-HE_150420B	36	28681
Molybdenum	ND	mg/kg-dry		5		SW6020	04/20/15 23:40 / sld	04/16/15 16:48	ICPMS204-B_150420B	35	28681
Nickel	6	mg/kg-dry		5		SW6010B	04/20/15 13:22 / sld	04/16/15 16:48	ICP2-HE_150420B	36	28681
Selenium	ND	mg/kg-dry		5		SW6020	04/20/15 23:40 / sld	04/16/15 16:48	ICPMS204-B_150420B	35	28681
Silver	ND	mg/kg-dry		5		SW6020	04/20/15 23:40 / sld	04/16/15 16:48	ICPMS204-B_150420B	35	28681
Uranium	ND	mg/kg-dry		5		SW6020	04/20/15 23:40 / sld	04/16/15 16:48	ICPMS204-B_150420B	35	28681
Vanadium	14	mg/kg-dry		1		SW6010B	04/20/15 13:22 / sld	04/16/15 16:48	ICP2-HE_150420B	36	28681
Zinc	95	mg/kg-dry		5		SW6010B	04/20/15 13:22 / sld	04/16/15 16:48	ICP2-HE_150420B	36	28681
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/22/15 14:46 / rgk	04/20/15 08:42	HGCV201-H_150422B	30	28695

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14 Sediment Sieve <0.065mm
Lab ID: H15030394-047
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 16:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	4.6	wt% Passed		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	31	R105684
PHYSICAL CHARACTERISTICS											
Moisture	65.9	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	35	R105653
3050 EXTRACTABLE METALS											
Aluminum	23700	mg/kg-dry		10		SW6010B	04/21/15 18:42 / sld	04/20/15 08:23	ICP2-HE_150421B	70	28693
Antimony	ND	mg/kg-dry		5		SW6020	04/22/15 13:14 / dck	04/20/15 08:23	ICPMS204-B_150422A	48	28693
Arsenic	33	mg/kg-dry		5		SW6020	04/22/15 13:14 / dck	04/20/15 08:23	ICPMS204-B_150422A	48	28693
Barium	345	mg/kg-dry		5		SW6020	04/22/15 13:14 / dck	04/20/15 08:23	ICPMS204-B_150422A	48	28693
Beryllium	ND	mg/kg-dry		5		SW6010B	04/21/15 18:42 / sld	04/20/15 08:23	ICP2-HE_150421B	70	28693
Boron	13	mg/kg-dry		5		SW6010B	04/21/15 18:42 / sld	04/20/15 08:23	ICP2-HE_150421B	70	28693
Cadmium	7.9	mg/kg-dry		0.5		SW6020	04/22/15 13:14 / dck	04/20/15 08:23	ICPMS204-B_150422A	48	28693
Chromium	32	mg/kg-dry		5		SW6020	04/22/15 13:14 / dck	04/20/15 08:23	ICPMS204-B_150422A	48	28693
Cobalt	13	mg/kg-dry		5		SW6020	04/22/15 13:14 / dck	04/20/15 08:23	ICPMS204-B_150422A	48	28693
Copper	554	mg/kg-dry		5		SW6010B	04/21/15 18:42 / sld	04/20/15 08:23	ICP2-HE_150421B	70	28693
Iron	24700	mg/kg-dry		9		SW6010B	04/21/15 18:42 / sld	04/20/15 08:23	ICP2-HE_150421B	70	28693
Lead	181	mg/kg-dry		5		SW6020	04/22/15 13:14 / dck	04/20/15 08:23	ICPMS204-B_150422A	48	28693
Manganese	3290	mg/kg-dry		5		SW6010B	04/21/15 18:42 / sld	04/20/15 08:23	ICP2-HE_150421B	70	28693
Molybdenum	6	mg/kg-dry		5		SW6020	04/22/15 13:14 / dck	04/20/15 08:23	ICPMS204-B_150422A	48	28693
Nickel	17	mg/kg-dry		5		SW6010B	04/21/15 18:42 / sld	04/20/15 08:23	ICP2-HE_150421B	70	28693
Selenium	ND	mg/kg-dry		5		SW6020	04/22/15 13:14 / dck	04/20/15 08:23	ICPMS204-B_150422A	48	28693
Silver	ND	mg/kg-dry		5		SW6020	04/22/15 13:14 / dck	04/20/15 08:23	ICPMS204-B_150422A	48	28693
Uranium	5	mg/kg-dry		5		SW6020	04/22/15 13:14 / dck	04/20/15 08:23	ICPMS204-B_150422A	48	28693
Vanadium	55	mg/kg-dry		2		SW6010B	04/21/15 18:42 / sld	04/20/15 08:23	ICP2-HE_150421B	70	28693
Zinc	1530	mg/kg-dry		5		SW6010B	04/21/15 18:42 / sld	04/20/15 08:23	ICP2-HE_150421B	70	28693
METALS, TOTAL											
Mercury	0.62	mg/kg-dry		0.10		SW7471B	04/22/15 14:55 / rgk	04/20/15 08:42	HGCV201-H_150422B	34	28695

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14 Sediment Sieve 0.065-1mm
Lab ID: H15030394-048
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 16:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	26.9	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	32	R105684
PHYSICAL CHARACTERISTICS											
Moisture	28.1	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	36	R105653
3050 EXTRACTABLE METALS											
Aluminum	5260	mg/kg-dry		5		SW6010B	04/21/15 18:46 / sld	04/20/15 08:23	ICP2-HE_150421B	71	28693
Antimony	ND	mg/kg-dry		5		SW6020	04/22/15 13:17 / dck	04/20/15 08:23	ICPMS204-B_150422A	49	28693
Arsenic	8	mg/kg-dry		5		SW6020	04/22/15 13:17 / dck	04/20/15 08:23	ICPMS204-B_150422A	49	28693
Barium	122	mg/kg-dry		5		SW6020	04/22/15 13:17 / dck	04/20/15 08:23	ICPMS204-B_150422A	49	28693
Beryllium	ND	mg/kg-dry		5		SW6010B	04/21/15 18:46 / sld	04/20/15 08:23	ICP2-HE_150421B	71	28693
Boron	ND	mg/kg-dry		5		SW6010B	04/21/15 18:46 / sld	04/20/15 08:23	ICP2-HE_150421B	71	28693
Cadmium	1.5	mg/kg-dry		0.2		SW6020	04/22/15 13:17 / dck	04/20/15 08:23	ICPMS204-B_150422A	49	28693
Chromium	16	mg/kg-dry		5		SW6020	04/22/15 13:17 / dck	04/20/15 08:23	ICPMS204-B_150422A	49	28693
Cobalt	ND	mg/kg-dry		5		SW6020	04/22/15 13:17 / dck	04/20/15 08:23	ICPMS204-B_150422A	49	28693
Copper	54	mg/kg-dry		5		SW6010B	04/21/15 18:46 / sld	04/20/15 08:23	ICP2-HE_150421B	71	28693
Iron	20500	mg/kg-dry		5		SW6010B	04/21/15 18:46 / sld	04/20/15 08:23	ICP2-HE_150421B	71	28693
Lead	21	mg/kg-dry		5		SW6020	04/22/15 13:17 / dck	04/20/15 08:23	ICPMS204-B_150422A	49	28693
Manganese	468	mg/kg-dry		5		SW6010B	04/21/15 18:46 / sld	04/20/15 08:23	ICP2-HE_150421B	71	28693
Molybdenum	ND	mg/kg-dry		5		SW6020	04/22/15 13:17 / dck	04/20/15 08:23	ICPMS204-B_150422A	49	28693
Nickel	ND	mg/kg-dry		5		SW6010B	04/21/15 18:46 / sld	04/20/15 08:23	ICP2-HE_150421B	71	28693
Selenium	ND	mg/kg-dry		5		SW6020	04/22/15 13:17 / dck	04/20/15 08:23	ICPMS204-B_150422A	49	28693
Silver	ND	mg/kg-dry		5		SW6020	04/22/15 13:17 / dck	04/20/15 08:23	ICPMS204-B_150422A	49	28693
Uranium	ND	mg/kg-dry		5		SW6020	04/22/15 13:17 / dck	04/20/15 08:23	ICPMS204-B_150422A	49	28693
Vanadium	60	mg/kg-dry		1		SW6010B	04/21/15 18:46 / sld	04/20/15 08:23	ICP2-HE_150421B	71	28693
Zinc	348	mg/kg-dry		5		SW6010B	04/21/15 18:46 / sld	04/20/15 08:23	ICP2-HE_150421B	71	28693
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/22/15 14:58 / rgk	04/20/15 08:42	HGCV201-H_150422B	35	28695

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14 Sediment Sieve 1-2mm
Lab ID: H15030394-049
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 16:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	33.5	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	33	R105684
PHYSICAL CHARACTERISTICS											
Moisture	26.4	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	37	R105653
3050 EXTRACTABLE METALS											
Aluminum	4280	mg/kg-dry		5		SW6010B	04/20/15 13:26 / sld	04/16/15 16:48	ICP2-HE_150420B	37	28681
Antimony	ND	mg/kg-dry		5		SW6020	04/20/15 23:43 / sld	04/16/15 16:48	ICPMS204-B_150420B	36	28681
Arsenic	9	mg/kg-dry		5		SW6020	04/20/15 23:43 / sld	04/16/15 16:48	ICPMS204-B_150420B	36	28681
Barium	111	mg/kg-dry		5		SW6010B	04/20/15 13:26 / sld	04/16/15 16:48	ICP2-HE_150420B	37	28681
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 13:26 / sld	04/16/15 16:48	ICP2-HE_150420B	37	28681
Boron	ND	mg/kg-dry		5		SW6010B	04/20/15 13:26 / sld	04/16/15 16:48	ICP2-HE_150420B	37	28681
Cadmium	0.4	mg/kg-dry		0.2		SW6020	04/22/15 12:09 / dck	04/16/15 16:48	ICPMS204-B_150422A	27	28681
Chromium	9	mg/kg-dry		5		SW6020	04/20/15 23:43 / sld	04/16/15 16:48	ICPMS204-B_150420B	36	28681
Cobalt	ND	mg/kg-dry		5		SW6020	04/20/15 23:43 / sld	04/16/15 16:48	ICPMS204-B_150420B	36	28681
Copper	26	mg/kg-dry		5		SW6010B	04/20/15 13:26 / sld	04/16/15 16:48	ICP2-HE_150420B	37	28681
Iron	6160	mg/kg-dry		5		SW6010B	04/20/15 13:26 / sld	04/16/15 16:48	ICP2-HE_150420B	37	28681
Lead	13	mg/kg-dry		5		SW6020	04/20/15 23:43 / sld	04/16/15 16:48	ICPMS204-B_150420B	36	28681
Manganese	384	mg/kg-dry		5		SW6010B	04/20/15 13:26 / sld	04/16/15 16:48	ICP2-HE_150420B	37	28681
Molybdenum	ND	mg/kg-dry		5		SW6020	04/20/15 23:43 / sld	04/16/15 16:48	ICPMS204-B_150420B	36	28681
Nickel	ND	mg/kg-dry		5		SW6010B	04/20/15 13:26 / sld	04/16/15 16:48	ICP2-HE_150420B	37	28681
Selenium	ND	mg/kg-dry		5		SW6020	04/20/15 23:43 / sld	04/16/15 16:48	ICPMS204-B_150420B	36	28681
Silver	ND	mg/kg-dry		5		SW6020	04/20/15 23:43 / sld	04/16/15 16:48	ICPMS204-B_150420B	36	28681
Uranium	ND	mg/kg-dry		5		SW6020	04/20/15 23:43 / sld	04/16/15 16:48	ICPMS204-B_150420B	36	28681
Vanadium	11	mg/kg-dry		1		SW6010B	04/20/15 13:26 / sld	04/16/15 16:48	ICP2-HE_150420B	37	28681
Zinc	120	mg/kg-dry		5		SW6010B	04/20/15 13:26 / sld	04/16/15 16:48	ICP2-HE_150420B	37	28681
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/22/15 15:00 / rgk	04/20/15 08:42	HGCV201-H_150422B	36	28695

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A Sediment Sieve <0.065mm
Lab ID: H15030394-050
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 14:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	4.6	wt% Passed		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	: 34	R105684
PHYSICAL CHARACTERISTICS											
Moisture	53.8	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	: 38	R105653
3050 EXTRACTABLE METALS											
Aluminum	22100	mg/kg-dry		8		SW6010B	04/20/15 15:21 / sld	04/16/15 15:33	ICP2-HE_150420B	: 68	28680
Antimony	ND	mg/kg-dry		5		SW6020	04/21/15 01:29 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 69	28680
Arsenic	343	mg/kg-dry		5		SW6020	04/21/15 01:29 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 69	28680
Barium	568	mg/kg-dry		5		SW6010B	04/20/15 15:21 / sld	04/16/15 15:33	ICP2-HE_150420B	: 68	28680
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 15:21 / sld	04/16/15 15:33	ICP2-HE_150420B	: 68	28680
Boron	9	mg/kg-dry		5		SW6010B	04/20/15 15:21 / sld	04/16/15 15:33	ICP2-HE_150420B	: 68	28680
Cadmium	24	mg/kg-dry	D	2		SW6020	04/21/15 01:29 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 69	28680
Chromium	43	mg/kg-dry		5		SW6020	04/21/15 01:29 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 69	28680
Cobalt	15	mg/kg-dry		5		SW6020	04/21/15 01:29 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 69	28680
Copper	3020	mg/kg-dry		5		SW6010B	04/20/15 15:21 / sld	04/16/15 15:33	ICP2-HE_150420B	: 68	28680
Iron	38500	mg/kg-dry		7		SW6010B	04/20/15 15:21 / sld	04/16/15 15:33	ICP2-HE_150420B	: 68	28680
Lead	1140	mg/kg-dry		5		SW6020	04/21/15 01:29 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 69	28680
Manganese	2570	mg/kg-dry		5		SW6010B	04/20/15 15:21 / sld	04/16/15 15:33	ICP2-HE_150420B	: 68	28680
Molybdenum	11	mg/kg-dry		5		SW6020	04/21/15 01:29 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 69	28680
Nickel	22	mg/kg-dry		5		SW6010B	04/20/15 15:21 / sld	04/16/15 15:33	ICP2-HE_150420B	: 68	28680
Selenium	ND	mg/kg-dry		5		SW6020	04/21/15 01:29 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 69	28680
Silver	16	mg/kg-dry		5		SW6020	04/21/15 01:29 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 69	28680
Uranium	10	mg/kg-dry		5		SW6020	04/21/15 01:29 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 69	28680
Vanadium	68	mg/kg-dry		2		SW6010B	04/20/15 15:21 / sld	04/16/15 15:33	ICP2-HE_150420B	: 68	28680
Zinc	4850	mg/kg-dry		5		SW6010B	04/20/15 15:21 / sld	04/16/15 15:33	ICP2-HE_150420B	: 68	28680
METALS, TOTAL											
Mercury	6.2	mg/kg-dry		0.21		SW7471B	04/22/15 15:34 / rgk	04/20/15 08:42	HGCV201-H_150422B	: 45	28695

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A Sediment Sieve 0.065-1mm
Lab ID: H15030394-051
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 14:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	22.6	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	35	R105684
PHYSICAL CHARACTERISTICS											
Moisture	27.3	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	39	R105653
3050 EXTRACTABLE METALS											
Aluminum	5350	mg/kg-dry		5		SW6010B	04/21/15 18:50 / sld	04/20/15 08:23	ICP2-HE_150421B	72	28693
Antimony	ND	mg/kg-dry		5		SW6020	04/22/15 13:20 / dck	04/20/15 08:23	ICPMS204-B_150422A	50	28693
Arsenic	155	mg/kg-dry		5		SW6020	04/22/15 13:20 / dck	04/20/15 08:23	ICPMS204-B_150422A	50	28693
Barium	133	mg/kg-dry		5		SW6020	04/22/15 13:20 / dck	04/20/15 08:23	ICPMS204-B_150422A	50	28693
Beryllium	ND	mg/kg-dry		5		SW6010B	04/21/15 18:50 / sld	04/20/15 08:23	ICP2-HE_150421B	72	28693
Boron	ND	mg/kg-dry		5		SW6010B	04/21/15 18:50 / sld	04/20/15 08:23	ICP2-HE_150421B	72	28693
Cadmium	7.8	mg/kg-dry		0.2		SW6020	04/22/15 13:20 / dck	04/20/15 08:23	ICPMS204-B_150422A	50	28693
Chromium	33	mg/kg-dry		5		SW6020	04/22/15 13:20 / dck	04/20/15 08:23	ICPMS204-B_150422A	50	28693
Cobalt	7	mg/kg-dry		5		SW6020	04/22/15 13:20 / dck	04/20/15 08:23	ICPMS204-B_150422A	50	28693
Copper	689	mg/kg-dry		5		SW6010B	04/21/15 18:50 / sld	04/20/15 08:23	ICP2-HE_150421B	72	28693
Iron	54700	mg/kg-dry		5		SW6010B	04/21/15 18:50 / sld	04/20/15 08:23	ICP2-HE_150421B	72	28693
Lead	219	mg/kg-dry		5		SW6020	04/22/15 13:20 / dck	04/20/15 08:23	ICPMS204-B_150422A	50	28693
Manganese	705	mg/kg-dry		5		SW6010B	04/21/15 18:50 / sld	04/20/15 08:23	ICP2-HE_150421B	72	28693
Molybdenum	ND	mg/kg-dry		5		SW6020	04/22/15 13:20 / dck	04/20/15 08:23	ICPMS204-B_150422A	50	28693
Nickel	7	mg/kg-dry		5		SW6010B	04/21/15 18:50 / sld	04/20/15 08:23	ICP2-HE_150421B	72	28693
Selenium	ND	mg/kg-dry		5		SW6020	04/22/15 13:20 / dck	04/20/15 08:23	ICPMS204-B_150422A	50	28693
Silver	6	mg/kg-dry		5		SW6020	04/22/15 13:20 / dck	04/20/15 08:23	ICPMS204-B_150422A	50	28693
Uranium	39	mg/kg-dry		5		SW6020	04/22/15 13:20 / dck	04/20/15 08:23	ICPMS204-B_150422A	50	28693
Vanadium	162	mg/kg-dry		1		SW6010B	04/21/15 18:50 / sld	04/20/15 08:23	ICP2-HE_150421B	72	28693
Zinc	2520	mg/kg-dry		5		SW6010B	04/21/15 18:50 / sld	04/20/15 08:23	ICP2-HE_150421B	72	28693
METALS, TOTAL											
Mercury	0.70	mg/kg-dry		0.10		SW7471B	04/22/15 15:19 / rgk	04/20/15 08:42	HGCV201-H_150422B	42	28695

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A Sediment Sieve 1-2mm
Lab ID: H15030394-052
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 14:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	15.8	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	36	R105684
PHYSICAL CHARACTERISTICS											
Moisture	20.9	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	40	R105653
3050 EXTRACTABLE METALS											
Aluminum	3120	mg/kg-dry		5		SW6010B	04/20/15 14:03 / sld	04/16/15 16:48	ICP2-HE_150420B	47	28681
Antimony	ND	mg/kg-dry		5		SW6020	04/20/15 23:47 / sld	04/16/15 16:48	ICPMS204-B_150420B	37	28681
Arsenic	65	mg/kg-dry		5		SW6020	04/20/15 23:47 / sld	04/16/15 16:48	ICPMS204-B_150420B	37	28681
Barium	71	mg/kg-dry		5		SW6010B	04/20/15 14:03 / sld	04/16/15 16:48	ICP2-HE_150420B	47	28681
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 14:03 / sld	04/16/15 16:48	ICP2-HE_150420B	47	28681
Boron	ND	mg/kg-dry		5		SW6010B	04/20/15 14:03 / sld	04/16/15 16:48	ICP2-HE_150420B	47	28681
Cadmium	4.7	mg/kg-dry		0.2		SW6020	04/22/15 12:12 / dck	04/16/15 16:48	ICPMS204-B_150422A	28	28681
Chromium	10	mg/kg-dry		5		SW6020	04/20/15 23:47 / sld	04/16/15 16:48	ICPMS204-B_150420B	37	28681
Cobalt	ND	mg/kg-dry		5		SW6020	04/20/15 23:47 / sld	04/16/15 16:48	ICPMS204-B_150420B	37	28681
Copper	294	mg/kg-dry		5		SW6010B	04/20/15 14:03 / sld	04/16/15 16:48	ICP2-HE_150420B	47	28681
Iron	11900	mg/kg-dry		5		SW6010B	04/20/15 14:03 / sld	04/16/15 16:48	ICP2-HE_150420B	47	28681
Lead	68	mg/kg-dry		5		SW6020	04/20/15 23:47 / sld	04/16/15 16:48	ICPMS204-B_150420B	37	28681
Manganese	1480	mg/kg-dry		5		SW6010B	04/20/15 14:03 / sld	04/16/15 16:48	ICP2-HE_150420B	47	28681
Molybdenum	ND	mg/kg-dry		5		SW6020	04/20/15 23:47 / sld	04/16/15 16:48	ICPMS204-B_150420B	37	28681
Nickel	ND	mg/kg-dry		5		SW6010B	04/20/15 14:03 / sld	04/16/15 16:48	ICP2-HE_150420B	47	28681
Selenium	ND	mg/kg-dry		5		SW6020	04/20/15 23:47 / sld	04/16/15 16:48	ICPMS204-B_150420B	37	28681
Silver	6	mg/kg-dry		5		SW6020	04/22/15 12:12 / dck	04/16/15 16:48	ICPMS204-B_150422A	28	28681
Uranium	ND	mg/kg-dry		5		SW6020	04/20/15 23:47 / sld	04/16/15 16:48	ICPMS204-B_150420B	37	28681
Vanadium	19	mg/kg-dry		1		SW6010B	04/20/15 14:03 / sld	04/16/15 16:48	ICP2-HE_150420B	47	28681
Zinc	1840	mg/kg-dry		5		SW6010B	04/20/15 14:03 / sld	04/16/15 16:48	ICP2-HE_150420B	47	28681
METALS, TOTAL											
Mercury	0.26	mg/kg-dry		0.10		SW7471B	04/22/15 11:37 / rgk	04/21/15 15:21	HGCV201-H_150422A	36	28719

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B Sediment Sieve <0.065mm
Lab ID: H15030394-053
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 13:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	10.8	wt% Passed		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	37	R105684
PHYSICAL CHARACTERISTICS											
Moisture	78.1	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	41	R105653
3050 EXTRACTABLE METALS											
Aluminum	27500	mg/kg-dry		10		SW6010B	04/20/15 15:32 / sld	04/16/15 15:33	ICP2-HE_150420B	71	28680
Antimony	ND	mg/kg-dry		5		SW6020	04/21/15 01:32 / sld	04/16/15 15:33	ICPMS204-B_150420B	70	28680
Arsenic	123	mg/kg-dry		5		SW6020	04/21/15 01:32 / sld	04/16/15 15:33	ICPMS204-B_150420B	70	28680
Barium	374	mg/kg-dry		5		SW6010B	04/20/15 15:32 / sld	04/16/15 15:33	ICP2-HE_150420B	71	28680
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 15:32 / sld	04/16/15 15:33	ICP2-HE_150420B	71	28680
Boron	21	mg/kg-dry		5		SW6010B	04/20/15 15:32 / sld	04/16/15 15:33	ICP2-HE_150420B	71	28680
Cadmium	19	mg/kg-dry	D	3		SW6020	04/21/15 01:32 / sld	04/16/15 15:33	ICPMS204-B_150420B	70	28680
Chromium	44	mg/kg-dry		5		SW6020	04/21/15 01:32 / sld	04/16/15 15:33	ICPMS204-B_150420B	70	28680
Cobalt	16	mg/kg-dry		5		SW6020	04/21/15 01:32 / sld	04/16/15 15:33	ICPMS204-B_150420B	70	28680
Copper	1470	mg/kg-dry		5		SW6010B	04/20/15 15:32 / sld	04/16/15 15:33	ICP2-HE_150420B	71	28680
Iron	32900	mg/kg-dry		10		SW6010B	04/20/15 15:32 / sld	04/16/15 15:33	ICP2-HE_150420B	71	28680
Lead	475	mg/kg-dry		5		SW6020	04/21/15 01:32 / sld	04/16/15 15:33	ICPMS204-B_150420B	70	28680
Manganese	3540	mg/kg-dry		5		SW6010B	04/20/15 15:32 / sld	04/16/15 15:33	ICP2-HE_150420B	71	28680
Molybdenum	7	mg/kg-dry		5		SW6020	04/21/15 01:32 / sld	04/16/15 15:33	ICPMS204-B_150420B	70	28680
Nickel	24	mg/kg-dry		5		SW6010B	04/20/15 15:32 / sld	04/16/15 15:33	ICP2-HE_150420B	71	28680
Selenium	ND	mg/kg-dry		5		SW6020	04/21/15 01:32 / sld	04/16/15 15:33	ICPMS204-B_150420B	70	28680
Silver	8	mg/kg-dry		5		SW6020	04/21/15 01:32 / sld	04/16/15 15:33	ICPMS204-B_150420B	70	28680
Uranium	7	mg/kg-dry		5		SW6020	04/21/15 01:32 / sld	04/16/15 15:33	ICPMS204-B_150420B	70	28680
Vanadium	70	mg/kg-dry		3		SW6010B	04/20/15 15:32 / sld	04/16/15 15:33	ICP2-HE_150420B	71	28680
Zinc	2990	mg/kg-dry		5		SW6010B	04/20/15 15:32 / sld	04/16/15 15:33	ICP2-HE_150420B	71	28680
METALS, TOTAL											
Mercury	2.0	mg/kg-dry		0.17		SW7471B	04/22/15 12:17 / rgk	04/21/15 15:21	HGCV201-H_150422A	44	28719

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B Sediment Sieve 0.065-1mm
Lab ID: H15030394-054
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 13:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	41.7	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	38	R105684
PHYSICAL CHARACTERISTICS											
Moisture	27.6	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	43	R105653
3050 EXTRACTABLE METALS											
Aluminum	6690	mg/kg-dry		5		SW6010B	04/21/15 18:53 / sld	04/20/15 08:23	ICP2-HE_150421B	73	28693
Antimony	ND	mg/kg-dry		5		SW6020	04/22/15 13:23 / dck	04/20/15 08:23	ICPMS204-B_150422A	51	28693
Arsenic	33	mg/kg-dry		5		SW6020	04/22/15 13:23 / dck	04/20/15 08:23	ICPMS204-B_150422A	51	28693
Barium	136	mg/kg-dry		5		SW6020	04/22/15 13:23 / dck	04/20/15 08:23	ICPMS204-B_150422A	51	28693
Beryllium	ND	mg/kg-dry		5		SW6010B	04/21/15 18:53 / sld	04/20/15 08:23	ICP2-HE_150421B	73	28693
Boron	ND	mg/kg-dry		5		SW6010B	04/21/15 18:53 / sld	04/20/15 08:23	ICP2-HE_150421B	73	28693
Cadmium	1.5	mg/kg-dry		0.2		SW6020	04/22/15 13:23 / dck	04/20/15 08:23	ICPMS204-B_150422A	51	28693
Chromium	16	mg/kg-dry		5		SW6020	04/22/15 13:23 / dck	04/20/15 08:23	ICPMS204-B_150422A	51	28693
Cobalt	ND	mg/kg-dry		5		SW6020	04/22/15 13:23 / dck	04/20/15 08:23	ICPMS204-B_150422A	51	28693
Copper	151	mg/kg-dry		5		SW6010B	04/21/15 18:53 / sld	04/20/15 08:23	ICP2-HE_150421B	73	28693
Iron	18800	mg/kg-dry		5		SW6010B	04/21/15 18:53 / sld	04/20/15 08:23	ICP2-HE_150421B	73	28693
Lead	67	mg/kg-dry		5		SW6020	04/22/15 13:23 / dck	04/20/15 08:23	ICPMS204-B_150422A	51	28693
Manganese	510	mg/kg-dry		5		SW6010B	04/21/15 18:53 / sld	04/20/15 08:23	ICP2-HE_150421B	73	28693
Molybdenum	ND	mg/kg-dry		5		SW6020	04/22/15 13:23 / dck	04/20/15 08:23	ICPMS204-B_150422A	51	28693
Nickel	7	mg/kg-dry		5		SW6010B	04/21/15 18:53 / sld	04/20/15 08:23	ICP2-HE_150421B	73	28693
Selenium	ND	mg/kg-dry		5		SW6020	04/22/15 13:23 / dck	04/20/15 08:23	ICPMS204-B_150422A	51	28693
Silver	ND	mg/kg-dry		5		SW6020	04/22/15 13:23 / dck	04/20/15 08:23	ICPMS204-B_150422A	51	28693
Uranium	ND	mg/kg-dry		5		SW6020	04/22/15 13:23 / dck	04/20/15 08:23	ICPMS204-B_150422A	51	28693
Vanadium	45	mg/kg-dry		1		SW6010B	04/21/15 18:53 / sld	04/20/15 08:23	ICP2-HE_150421B	73	28693
Zinc	539	mg/kg-dry		5		SW6010B	04/21/15 18:53 / sld	04/20/15 08:23	ICP2-HE_150421B	73	28693
METALS, TOTAL											
Mercury	0.27	mg/kg-dry		0.10		SW7471B	04/22/15 11:32 / rgk	04/21/15 15:21	HGCV201-H_150422A	34	28719

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B Sediment Sieve 1-2mm
Lab ID: H15030394-055
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 13:15
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	19.9	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	39	R105684
PHYSICAL CHARACTERISTICS											
Moisture	18.1	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	44	R105653
3050 EXTRACTABLE METALS											
Aluminum	7470	mg/kg-dry		5		SW6010B	04/20/15 14:07 / sld	04/16/15 16:48	ICP2-HE_150420B	48	28681
Antimony	ND	mg/kg-dry		5		SW6020	04/20/15 23:50 / sld	04/16/15 16:48	ICPMS204-B_150420B	38	28681
Arsenic	34	mg/kg-dry		5		SW6020	04/20/15 23:50 / sld	04/16/15 16:48	ICPMS204-B_150420B	38	28681
Barium	103	mg/kg-dry		5		SW6010B	04/20/15 14:07 / sld	04/16/15 16:48	ICP2-HE_150420B	48	28681
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 14:07 / sld	04/16/15 16:48	ICP2-HE_150420B	48	28681
Boron	ND	mg/kg-dry		5		SW6010B	04/20/15 14:07 / sld	04/16/15 16:48	ICP2-HE_150420B	48	28681
Cadmium	0.7	mg/kg-dry		0.2		SW6020	04/22/15 12:15 / dck	04/16/15 16:48	ICPMS204-B_150422A	29	28681
Chromium	15	mg/kg-dry		5		SW6020	04/20/15 23:50 / sld	04/16/15 16:48	ICPMS204-B_150420B	38	28681
Cobalt	ND	mg/kg-dry		5		SW6020	04/20/15 23:50 / sld	04/16/15 16:48	ICPMS204-B_150420B	38	28681
Copper	112	mg/kg-dry		5		SW6010B	04/20/15 14:07 / sld	04/16/15 16:48	ICP2-HE_150420B	48	28681
Iron	12900	mg/kg-dry		5		SW6010B	04/20/15 14:07 / sld	04/16/15 16:48	ICP2-HE_150420B	48	28681
Lead	36	mg/kg-dry		5		SW6020	04/20/15 23:50 / sld	04/16/15 16:48	ICPMS204-B_150420B	38	28681
Manganese	394	mg/kg-dry		5		SW6010B	04/20/15 14:07 / sld	04/16/15 16:48	ICP2-HE_150420B	48	28681
Molybdenum	ND	mg/kg-dry		5		SW6020	04/20/15 23:50 / sld	04/16/15 16:48	ICPMS204-B_150420B	38	28681
Nickel	9	mg/kg-dry		5		SW6010B	04/20/15 14:07 / sld	04/16/15 16:48	ICP2-HE_150420B	48	28681
Selenium	ND	mg/kg-dry		5		SW6020	04/20/15 23:50 / sld	04/16/15 16:48	ICPMS204-B_150420B	38	28681
Silver	ND	mg/kg-dry		5		SW6020	04/20/15 23:50 / sld	04/16/15 16:48	ICPMS204-B_150420B	38	28681
Uranium	ND	mg/kg-dry		5		SW6020	04/20/15 23:50 / sld	04/16/15 16:48	ICPMS204-B_150420B	38	28681
Vanadium	22	mg/kg-dry		1		SW6010B	04/20/15 14:07 / sld	04/16/15 16:48	ICP2-HE_150420B	48	28681
Zinc	212	mg/kg-dry		5		SW6010B	04/20/15 14:07 / sld	04/16/15 16:48	ICP2-HE_150420B	48	28681
METALS, TOTAL											
Mercury	0.31	mg/kg-dry		0.10		SW7471B	04/22/15 11:25 / rgk	04/21/15 15:21	HGCV201-H_150422A	31	28719

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B Sediment Sieve <0.065mm
Lab ID: H15030394-056
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 11:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	3.3	wt% Passed		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	: 40	R105684
PHYSICAL CHARACTERISTICS											
Moisture	51.3	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	: 45	R105653
3050 EXTRACTABLE METALS											
Aluminum	30100	mg/kg-dry		7		SW6010B	04/20/15 15:35 / sld	04/16/15 15:33	ICP2-HE_150420B	: 72	28680
Antimony	ND	mg/kg-dry		5		SW6020	04/21/15 01:35 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 71	28680
Arsenic	68	mg/kg-dry		5		SW6020	04/21/15 01:35 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 71	28680
Barium	374	mg/kg-dry		5		SW6010B	04/20/15 15:35 / sld	04/16/15 15:33	ICP2-HE_150420B	: 72	28680
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 15:35 / sld	04/16/15 15:33	ICP2-HE_150420B	: 72	28680
Boron	10	mg/kg-dry		5		SW6010B	04/20/15 15:35 / sld	04/16/15 15:33	ICP2-HE_150420B	: 72	28680
Cadmium	11	mg/kg-dry	D	2		SW6020	04/21/15 01:35 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 71	28680
Chromium	55	mg/kg-dry		5		SW6020	04/21/15 01:35 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 71	28680
Cobalt	15	mg/kg-dry		5		SW6020	04/21/15 01:35 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 71	28680
Copper	641	mg/kg-dry		5		SW6010B	04/20/15 15:35 / sld	04/16/15 15:33	ICP2-HE_150420B	: 72	28680
Iron	34000	mg/kg-dry		6		SW6010B	04/20/15 15:35 / sld	04/16/15 15:33	ICP2-HE_150420B	: 72	28680
Lead	379	mg/kg-dry		5		SW6020	04/21/15 01:35 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 71	28680
Manganese	3540	mg/kg-dry		5		SW6010B	04/20/15 15:35 / sld	04/16/15 15:33	ICP2-HE_150420B	: 72	28680
Molybdenum	ND	mg/kg-dry		5		SW6020	04/21/15 01:35 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 71	28680
Nickel	28	mg/kg-dry		5		SW6010B	04/20/15 15:35 / sld	04/16/15 15:33	ICP2-HE_150420B	: 72	28680
Selenium	ND	mg/kg-dry		5		SW6020	04/21/15 01:35 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 71	28680
Silver	ND	mg/kg-dry		5		SW6020	04/21/15 01:35 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 71	28680
Uranium	ND	mg/kg-dry		5		SW6020	04/21/15 01:35 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 71	28680
Vanadium	81	mg/kg-dry		2		SW6010B	04/20/15 15:35 / sld	04/16/15 15:33	ICP2-HE_150420B	: 72	28680
Zinc	1500	mg/kg-dry		5		SW6010B	04/20/15 15:35 / sld	04/16/15 15:33	ICP2-HE_150420B	: 72	28680
METALS, TOTAL											
Mercury	1.3	mg/kg-dry		0.10		SW7471B	04/22/15 12:15 / rgk	04/21/15 15:21	HGCV201-H_150422A	: 43	28719

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B Sediment Sieve 0.065-1mm
Lab ID: H15030394-057
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 11:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	66.9	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	41	R105684
PHYSICAL CHARACTERISTICS											
Moisture	24.8	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	46	R105653
3050 EXTRACTABLE METALS											
Aluminum	6610	mg/kg-dry		5		SW6010B	04/21/15 18:57 / sld	04/20/15 08:23	ICP2-HE_150421B	74	28693
Antimony	ND	mg/kg-dry		5		SW6020	04/22/15 13:26 / dck	04/20/15 08:23	ICPMS204-B_150422A	52	28693
Arsenic	37	mg/kg-dry		5		SW6020	04/22/15 13:26 / dck	04/20/15 08:23	ICPMS204-B_150422A	52	28693
Barium	120	mg/kg-dry		5		SW6020	04/22/15 13:26 / dck	04/20/15 08:23	ICPMS204-B_150422A	52	28693
Beryllium	ND	mg/kg-dry		5		SW6010B	04/21/15 18:57 / sld	04/20/15 08:23	ICP2-HE_150421B	74	28693
Boron	ND	mg/kg-dry		5		SW6010B	04/21/15 18:57 / sld	04/20/15 08:23	ICP2-HE_150421B	74	28693
Cadmium	1.3	mg/kg-dry		0.2		SW6020	04/22/15 13:26 / dck	04/20/15 08:23	ICPMS204-B_150422A	52	28693
Chromium	25	mg/kg-dry		5		SW6020	04/22/15 13:26 / dck	04/20/15 08:23	ICPMS204-B_150422A	52	28693
Cobalt	6	mg/kg-dry		5		SW6020	04/22/15 13:26 / dck	04/20/15 08:23	ICPMS204-B_150422A	52	28693
Copper	156	mg/kg-dry		5		SW6010B	04/21/15 18:57 / sld	04/20/15 08:23	ICP2-HE_150421B	74	28693
Iron	34700	mg/kg-dry		5		SW6010B	04/21/15 18:57 / sld	04/20/15 08:23	ICP2-HE_150421B	74	28693
Lead	91	mg/kg-dry		5		SW6020	04/22/15 13:26 / dck	04/20/15 08:23	ICPMS204-B_150422A	52	28693
Manganese	709	mg/kg-dry		5		SW6010B	04/21/15 18:57 / sld	04/20/15 08:23	ICP2-HE_150421B	74	28693
Molybdenum	ND	mg/kg-dry		5		SW6020	04/22/15 13:26 / dck	04/20/15 08:23	ICPMS204-B_150422A	52	28693
Nickel	7	mg/kg-dry		5		SW6010B	04/21/15 18:57 / sld	04/20/15 08:23	ICP2-HE_150421B	74	28693
Selenium	ND	mg/kg-dry		5		SW6020	04/22/15 13:26 / dck	04/20/15 08:23	ICPMS204-B_150422A	52	28693
Silver	ND	mg/kg-dry		5		SW6020	04/22/15 13:26 / dck	04/20/15 08:23	ICPMS204-B_150422A	52	28693
Uranium	ND	mg/kg-dry		5		SW6020	04/22/15 13:26 / dck	04/20/15 08:23	ICPMS204-B_150422A	52	28693
Vanadium	105	mg/kg-dry		1		SW6010B	04/21/15 18:57 / sld	04/20/15 08:23	ICP2-HE_150421B	74	28693
Zinc	473	mg/kg-dry		5		SW6010B	04/21/15 18:57 / sld	04/20/15 08:23	ICP2-HE_150421B	74	28693
METALS, TOTAL											
Mercury	0.26	mg/kg-dry		0.10		SW7471B	04/22/15 11:20 / rgk	04/21/15 15:21	HGCV201-H_150422A	29	28719

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B Sediment Sieve 1-2mm
Lab ID: H15030394-058
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 11:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	11.3	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	42	R105684
PHYSICAL CHARACTERISTICS											
Moisture	19.2	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	47	R105653
3050 EXTRACTABLE METALS											
Aluminum	3540	mg/kg-dry		5		SW6010B	04/20/15 14:10 / sld	04/16/15 16:48	ICP2-HE_150420B	49	28681
Antimony	ND	mg/kg-dry		5		SW6020	04/21/15 00:06 / sld	04/16/15 16:48	ICPMS204-B_150420B	43	28681
Arsenic	21	mg/kg-dry		5		SW6020	04/21/15 00:06 / sld	04/16/15 16:48	ICPMS204-B_150420B	43	28681
Barium	79	mg/kg-dry		5		SW6010B	04/20/15 14:10 / sld	04/16/15 16:48	ICP2-HE_150420B	49	28681
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 14:10 / sld	04/16/15 16:48	ICP2-HE_150420B	49	28681
Boron	ND	mg/kg-dry		5		SW6010B	04/20/15 14:10 / sld	04/16/15 16:48	ICP2-HE_150420B	49	28681
Cadmium	0.4	mg/kg-dry		0.2		SW6020	04/22/15 12:18 / dck	04/16/15 16:48	ICPMS204-B_150422A	30	28681
Chromium	8	mg/kg-dry		5		SW6020	04/21/15 00:06 / sld	04/16/15 16:48	ICPMS204-B_150420B	43	28681
Cobalt	ND	mg/kg-dry		5		SW6020	04/21/15 00:06 / sld	04/16/15 16:48	ICPMS204-B_150420B	43	28681
Copper	65	mg/kg-dry		5		SW6010B	04/20/15 14:10 / sld	04/16/15 16:48	ICP2-HE_150420B	49	28681
Iron	9090	mg/kg-dry		5		SW6010B	04/20/15 14:10 / sld	04/16/15 16:48	ICP2-HE_150420B	49	28681
Lead	25	mg/kg-dry		5		SW6020	04/21/15 00:06 / sld	04/16/15 16:48	ICPMS204-B_150420B	43	28681
Manganese	435	mg/kg-dry		5		SW6010B	04/20/15 14:10 / sld	04/16/15 16:48	ICP2-HE_150420B	49	28681
Molybdenum	ND	mg/kg-dry		5		SW6020	04/21/15 00:06 / sld	04/16/15 16:48	ICPMS204-B_150420B	43	28681
Nickel	ND	mg/kg-dry		5		SW6010B	04/20/15 14:10 / sld	04/16/15 16:48	ICP2-HE_150420B	49	28681
Selenium	ND	mg/kg-dry		5		SW6020	04/21/15 00:06 / sld	04/16/15 16:48	ICPMS204-B_150420B	43	28681
Silver	ND	mg/kg-dry		5		SW6020	04/21/15 00:06 / sld	04/16/15 16:48	ICPMS204-B_150420B	43	28681
Uranium	ND	mg/kg-dry		5		SW6020	04/21/15 00:06 / sld	04/16/15 16:48	ICPMS204-B_150420B	43	28681
Vanadium	18	mg/kg-dry		1		SW6010B	04/20/15 14:10 / sld	04/16/15 16:48	ICP2-HE_150420B	49	28681
Zinc	155	mg/kg-dry		5		SW6010B	04/20/15 14:10 / sld	04/16/15 16:48	ICP2-HE_150420B	49	28681
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/22/15 11:18 / rgk	04/21/15 15:21	HGCV201-H_150422A	28	28719

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D Sediment Sieve <0.065mm
Lab ID: H15030394-059
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 10:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	2.9	wt% Passed		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	: 43	R105684
PHYSICAL CHARACTERISTICS											
Moisture	56.4	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	: 48	R105653
3050 EXTRACTABLE METALS											
Aluminum	27500	mg/kg-dry		7		SW6010B	04/20/15 15:39 / sld	04/16/15 15:33	ICP2-HE_150420B	: 73	28680
Antimony	ND	mg/kg-dry		5		SW6020	04/21/15 01:38 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 72	28680
Arsenic	74	mg/kg-dry		5		SW6020	04/21/15 01:38 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 72	28680
Barium	375	mg/kg-dry		5		SW6010B	04/20/15 15:39 / sld	04/16/15 15:33	ICP2-HE_150420B	: 73	28680
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 15:39 / sld	04/16/15 15:33	ICP2-HE_150420B	: 73	28680
Boron	11	mg/kg-dry		5		SW6010B	04/20/15 15:39 / sld	04/16/15 15:33	ICP2-HE_150420B	: 73	28680
Cadmium	15	mg/kg-dry	D	2		SW6020	04/21/15 01:38 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 72	28680
Chromium	59	mg/kg-dry		5		SW6020	04/21/15 01:38 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 72	28680
Cobalt	22	mg/kg-dry		5		SW6020	04/21/15 01:38 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 72	28680
Copper	826	mg/kg-dry		5		SW6010B	04/20/15 15:39 / sld	04/16/15 15:33	ICP2-HE_150420B	: 73	28680
Iron	40000	mg/kg-dry		7		SW6010B	04/20/15 15:39 / sld	04/16/15 15:33	ICP2-HE_150420B	: 73	28680
Lead	254	mg/kg-dry		5		SW6020	04/21/15 01:38 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 72	28680
Manganese	9190	mg/kg-dry		5		SW6010B	04/20/15 15:39 / sld	04/16/15 15:33	ICP2-HE_150420B	: 73	28680
Molybdenum	ND	mg/kg-dry		5		SW6020	04/21/15 01:38 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 72	28680
Nickel	30	mg/kg-dry		5		SW6010B	04/20/15 15:39 / sld	04/16/15 15:33	ICP2-HE_150420B	: 73	28680
Selenium	ND	mg/kg-dry		5		SW6020	04/21/15 01:38 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 72	28680
Silver	ND	mg/kg-dry		5		SW6020	04/21/15 01:38 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 72	28680
Uranium	ND	mg/kg-dry		5		SW6020	04/21/15 01:38 / sld	04/16/15 15:33	ICPMS204-B_150420B	: 72	28680
Vanadium	110	mg/kg-dry		2		SW6010B	04/20/15 15:39 / sld	04/16/15 15:33	ICP2-HE_150420B	: 73	28680
Zinc	1930	mg/kg-dry		5		SW6010B	04/20/15 15:39 / sld	04/16/15 15:33	ICP2-HE_150420B	: 73	28680
METALS, TOTAL											
Mercury	1.2	mg/kg-dry		0.11		SW7471B	04/22/15 12:13 / rgk	04/21/15 15:21	HGCV201-H_150422A	: 42	28719

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D Sediment Sieve 0.065-1mm
Lab ID: H15030394-060
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 10:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	75.4	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	44	R105684
PHYSICAL CHARACTERISTICS											
Moisture	24.9	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	49	R105653
3050 EXTRACTABLE METALS											
Aluminum	4850	mg/kg-dry		5		SW6010B	04/21/15 19:01 / sld	04/20/15 08:23	ICP2-HE_150421B	75	28693
Antimony	ND	mg/kg-dry		5		SW6020	04/22/15 13:29 / dck	04/20/15 08:23	ICPMS204-B_150422A	53	28693
Arsenic	23	mg/kg-dry		5		SW6020	04/22/15 13:29 / dck	04/20/15 08:23	ICPMS204-B_150422A	53	28693
Barium	111	mg/kg-dry		5		SW6020	04/22/15 13:29 / dck	04/20/15 08:23	ICPMS204-B_150422A	53	28693
Beryllium	ND	mg/kg-dry		5		SW6010B	04/21/15 19:01 / sld	04/20/15 08:23	ICP2-HE_150421B	75	28693
Boron	ND	mg/kg-dry		5		SW6010B	04/21/15 19:01 / sld	04/20/15 08:23	ICP2-HE_150421B	75	28693
Cadmium	0.8	mg/kg-dry		0.2		SW6020	04/22/15 13:29 / dck	04/20/15 08:23	ICPMS204-B_150422A	53	28693
Chromium	9	mg/kg-dry		5		SW6020	04/22/15 13:29 / dck	04/20/15 08:23	ICPMS204-B_150422A	53	28693
Cobalt	ND	mg/kg-dry		5		SW6020	04/22/15 13:29 / dck	04/20/15 08:23	ICPMS204-B_150422A	53	28693
Copper	87	mg/kg-dry		5		SW6010B	04/21/15 19:01 / sld	04/20/15 08:23	ICP2-HE_150421B	75	28693
Iron	9790	mg/kg-dry		5		SW6010B	04/21/15 19:01 / sld	04/20/15 08:23	ICP2-HE_150421B	75	28693
Lead	60	mg/kg-dry		5		SW6020	04/22/15 13:29 / dck	04/20/15 08:23	ICPMS204-B_150422A	53	28693
Manganese	877	mg/kg-dry		5		SW6010B	04/21/15 19:01 / sld	04/20/15 08:23	ICP2-HE_150421B	75	28693
Molybdenum	ND	mg/kg-dry		5		SW6020	04/22/15 13:29 / dck	04/20/15 08:23	ICPMS204-B_150422A	53	28693
Nickel	ND	mg/kg-dry		5		SW6010B	04/21/15 19:01 / sld	04/20/15 08:23	ICP2-HE_150421B	75	28693
Selenium	ND	mg/kg-dry		5		SW6020	04/22/15 13:29 / dck	04/20/15 08:23	ICPMS204-B_150422A	53	28693
Silver	ND	mg/kg-dry		5		SW6020	04/22/15 13:29 / dck	04/20/15 08:23	ICPMS204-B_150422A	53	28693
Uranium	ND	mg/kg-dry		5		SW6020	04/22/15 13:29 / dck	04/20/15 08:23	ICPMS204-B_150422A	53	28693
Vanadium	23	mg/kg-dry		1		SW6010B	04/21/15 19:01 / sld	04/20/15 08:23	ICP2-HE_150421B	75	28693
Zinc	287	mg/kg-dry		5		SW6010B	04/21/15 19:01 / sld	04/20/15 08:23	ICP2-HE_150421B	75	28693
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/22/15 11:13 / rgk	04/21/15 15:21	HGCV201-H_150422A	26	28719

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D Sediment Sieve 1-2mm
Lab ID: H15030394-061
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 10:45
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	8.3	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	45	R105684
PHYSICAL CHARACTERISTICS											
Moisture	18.3	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	50	R105653
3050 EXTRACTABLE METALS											
Aluminum	4330	mg/kg-dry		5		SW6010B	04/20/15 14:14 / sld	04/16/15 16:48	ICP2-HE_150420B	50	28681
Antimony	ND	mg/kg-dry		5		SW6020	04/21/15 00:09 / sld	04/16/15 16:48	ICPMS204-B_150420B	44	28681
Arsenic	26	mg/kg-dry		5		SW6020	04/21/15 00:09 / sld	04/16/15 16:48	ICPMS204-B_150420B	44	28681
Barium	77	mg/kg-dry		5		SW6010B	04/20/15 14:14 / sld	04/16/15 16:48	ICP2-HE_150420B	50	28681
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 14:14 / sld	04/16/15 16:48	ICP2-HE_150420B	50	28681
Boron	ND	mg/kg-dry		5		SW6010B	04/20/15 14:14 / sld	04/16/15 16:48	ICP2-HE_150420B	50	28681
Cadmium	1	mg/kg-dry	D	1		SW6020	04/21/15 00:09 / sld	04/16/15 16:48	ICPMS204-B_150420B	44	28681
Chromium	9	mg/kg-dry		5		SW6020	04/21/15 00:09 / sld	04/16/15 16:48	ICPMS204-B_150420B	44	28681
Cobalt	ND	mg/kg-dry		5		SW6020	04/21/15 00:09 / sld	04/16/15 16:48	ICPMS204-B_150420B	44	28681
Copper	101	mg/kg-dry		5		SW6010B	04/20/15 14:14 / sld	04/16/15 16:48	ICP2-HE_150420B	50	28681
Iron	9020	mg/kg-dry		5		SW6010B	04/20/15 14:14 / sld	04/16/15 16:48	ICP2-HE_150420B	50	28681
Lead	55	mg/kg-dry		5		SW6020	04/21/15 00:09 / sld	04/16/15 16:48	ICPMS204-B_150420B	44	28681
Manganese	683	mg/kg-dry		5		SW6010B	04/20/15 14:14 / sld	04/16/15 16:48	ICP2-HE_150420B	50	28681
Molybdenum	ND	mg/kg-dry		5		SW6020	04/21/15 00:09 / sld	04/16/15 16:48	ICPMS204-B_150420B	44	28681
Nickel	5	mg/kg-dry		5		SW6010B	04/20/15 14:14 / sld	04/16/15 16:48	ICP2-HE_150420B	50	28681
Selenium	ND	mg/kg-dry		5		SW6020	04/21/15 00:09 / sld	04/16/15 16:48	ICPMS204-B_150420B	44	28681
Silver	ND	mg/kg-dry		5		SW6020	04/21/15 00:09 / sld	04/16/15 16:48	ICPMS204-B_150420B	44	28681
Uranium	ND	mg/kg-dry		5		SW6020	04/21/15 00:09 / sld	04/16/15 16:48	ICPMS204-B_150420B	44	28681
Vanadium	16	mg/kg-dry		1		SW6010B	04/20/15 14:14 / sld	04/16/15 16:48	ICP2-HE_150420B	50	28681
Zinc	222	mg/kg-dry		5		SW6010B	04/20/15 14:14 / sld	04/16/15 16:48	ICP2-HE_150420B	50	28681
METALS, TOTAL											
Mercury	0.38	mg/kg-dry		0.10		SW7471B	04/22/15 11:10 / rgk	04/21/15 15:21	HGCV201-H_150422A	25	28719

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19 Sediment Sieve <0.065mm
Lab ID: H15030394-062
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 09:00
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	3.6	wt% Passed		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	46	R105684
PHYSICAL CHARACTERISTICS											
Moisture	45.0	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	51	R105653
3050 EXTRACTABLE METALS											
Aluminum	26400	mg/kg-dry		6		SW6010B	04/20/15 15:43 / sld	04/16/15 15:33	ICP2-HE_150420B	74	28680
Antimony	ND	mg/kg-dry		5		SW6020	04/21/15 01:41 / sld	04/16/15 15:33	ICPMS204-B_150420B	73	28680
Arsenic	463	mg/kg-dry		5		SW6020	04/21/15 01:41 / sld	04/16/15 15:33	ICPMS204-B_150420B	73	28680
Barium	278	mg/kg-dry		5		SW6010B	04/20/15 15:43 / sld	04/16/15 15:33	ICP2-HE_150420B	74	28680
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 15:43 / sld	04/16/15 15:33	ICP2-HE_150420B	74	28680
Boron	7	mg/kg-dry		5		SW6010B	04/20/15 15:43 / sld	04/16/15 15:33	ICP2-HE_150420B	74	28680
Cadmium	97	mg/kg-dry	D	1		SW6020	04/21/15 01:41 / sld	04/16/15 15:33	ICPMS204-B_150420B	73	28680
Chromium	50	mg/kg-dry		5		SW6020	04/21/15 01:41 / sld	04/16/15 15:33	ICPMS204-B_150420B	73	28680
Cobalt	46	mg/kg-dry		5		SW6020	04/21/15 01:41 / sld	04/16/15 15:33	ICPMS204-B_150420B	73	28680
Copper	35700	mg/kg-dry		5		SW6010B	04/20/15 15:43 / sld	04/16/15 15:33	ICP2-HE_150420B	74	28680
Iron	47900	mg/kg-dry		5		SW6010B	04/20/15 15:43 / sld	04/16/15 15:33	ICP2-HE_150420B	74	28680
Lead	501	mg/kg-dry		5		SW6020	04/21/15 01:41 / sld	04/16/15 15:33	ICPMS204-B_150420B	73	28680
Manganese	1160	mg/kg-dry		5		SW6010B	04/20/15 15:43 / sld	04/16/15 15:33	ICP2-HE_150420B	74	28680
Molybdenum	26	mg/kg-dry		5		SW6020	04/21/15 01:41 / sld	04/16/15 15:33	ICPMS204-B_150420B	73	28680
Nickel	36	mg/kg-dry		5		SW6010B	04/20/15 15:43 / sld	04/16/15 15:33	ICP2-HE_150420B	74	28680
Selenium	ND	mg/kg-dry		5		SW6020	04/21/15 01:41 / sld	04/16/15 15:33	ICPMS204-B_150420B	73	28680
Silver	7	mg/kg-dry		5		SW6020	04/21/15 01:41 / sld	04/16/15 15:33	ICPMS204-B_150420B	73	28680
Uranium	63	mg/kg-dry		5		SW6020	04/21/15 01:41 / sld	04/16/15 15:33	ICPMS204-B_150420B	73	28680
Vanadium	76	mg/kg-dry		1		SW6010B	04/20/15 15:43 / sld	04/16/15 15:33	ICP2-HE_150420B	74	28680
Zinc	15000	mg/kg-dry		5		SW6010B	04/20/15 15:43 / sld	04/16/15 15:33	ICP2-HE_150420B	74	28680
METALS, TOTAL											
Mercury	1.8	mg/kg-dry		0.10		SW7471B	04/22/15 11:01 / rgk	04/21/15 15:21	HGCV201-H_150422A	21	28719

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19 Sediment Sieve 0.065-1mm
Lab ID: H15030394-063
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 09:00
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	39.4	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	47	R105684
PHYSICAL CHARACTERISTICS											
Moisture	19.2	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	52	R105653
3050 EXTRACTABLE METALS											
Aluminum	4960	mg/kg-dry		5		SW6010B	04/21/15 19:04 / sld	04/20/15 08:23	ICP2-HE_150421B	76	28693
Antimony	ND	mg/kg-dry		5		SW6020	04/22/15 13:33 / dck	04/20/15 08:23	ICPMS204-B_150422A	54	28693
Arsenic	40	mg/kg-dry		5		SW6020	04/22/15 13:33 / dck	04/20/15 08:23	ICPMS204-B_150422A	54	28693
Barium	98	mg/kg-dry		5		SW6020	04/22/15 13:33 / dck	04/20/15 08:23	ICPMS204-B_150422A	54	28693
Beryllium	ND	mg/kg-dry		5		SW6010B	04/21/15 19:04 / sld	04/20/15 08:23	ICP2-HE_150421B	76	28693
Boron	ND	mg/kg-dry		5		SW6010B	04/21/15 19:04 / sld	04/20/15 08:23	ICP2-HE_150421B	76	28693
Cadmium	2.9	mg/kg-dry		0.2		SW6020	04/22/15 13:33 / dck	04/20/15 08:23	ICPMS204-B_150422A	54	28693
Chromium	15	mg/kg-dry		5		SW6020	04/22/15 13:33 / dck	04/20/15 08:23	ICPMS204-B_150422A	54	28693
Cobalt	6	mg/kg-dry		5		SW6020	04/22/15 13:33 / dck	04/20/15 08:23	ICPMS204-B_150422A	54	28693
Copper	1180	mg/kg-dry		5		SW6010B	04/21/15 19:04 / sld	04/20/15 08:23	ICP2-HE_150421B	76	28693
Iron	19200	mg/kg-dry		5		SW6010B	04/21/15 19:04 / sld	04/20/15 08:23	ICP2-HE_150421B	76	28693
Lead	65	mg/kg-dry		5		SW6020	04/22/15 13:33 / dck	04/20/15 08:23	ICPMS204-B_150422A	54	28693
Manganese	482	mg/kg-dry		5		SW6010B	04/21/15 19:04 / sld	04/20/15 08:23	ICP2-HE_150421B	76	28693
Molybdenum	ND	mg/kg-dry		5		SW6020	04/22/15 13:33 / dck	04/20/15 08:23	ICPMS204-B_150422A	54	28693
Nickel	6	mg/kg-dry		5		SW6010B	04/21/15 19:04 / sld	04/20/15 08:23	ICP2-HE_150421B	76	28693
Selenium	ND	mg/kg-dry		5		SW6020	04/22/15 13:33 / dck	04/20/15 08:23	ICPMS204-B_150422A	54	28693
Silver	ND	mg/kg-dry		5		SW6020	04/22/15 13:33 / dck	04/20/15 08:23	ICPMS204-B_150422A	54	28693
Uranium	9	mg/kg-dry		5		SW6020	04/22/15 13:33 / dck	04/20/15 08:23	ICPMS204-B_150422A	54	28693
Vanadium	55	mg/kg-dry		1		SW6010B	04/21/15 19:04 / sld	04/20/15 08:23	ICP2-HE_150421B	76	28693
Zinc	778	mg/kg-dry		5		SW6010B	04/21/15 19:04 / sld	04/20/15 08:23	ICP2-HE_150421B	76	28693
METALS, TOTAL											
Mercury	0.13	mg/kg-dry		0.10		SW7471B	04/22/15 10:38 / rgk	04/21/15 15:21	HGCV201-H_150422A	16	28719

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19 Sediment Sieve 1-2mm
Lab ID: H15030394-064
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 03/26/15 09:00
DateReceived: 03/30/15
Report Date: 04/27/15
Revised Date: 04/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	15.5	wt% retained		0.1		ASA15-2	04/09/15 15:24 / edp		MISC SOILS_150409C	48	R105684
PHYSICAL CHARACTERISTICS											
Moisture	16.7	wt%		0.2		D2974	04/22/15 15:04 / edp		RYING OVEN 2_150421A	54	R105653
3050 EXTRACTABLE METALS											
Aluminum	3790	mg/kg-dry		5		SW6010B	04/20/15 14:18 / sld	04/16/15 16:48	ICP2-HE_150420B	51	28681
Antimony	ND	mg/kg-dry		5		SW6020	04/21/15 00:12 / sld	04/16/15 16:48	ICPMS204-B_150420B	45	28681
Arsenic	25	mg/kg-dry		5		SW6020	04/21/15 00:12 / sld	04/16/15 16:48	ICPMS204-B_150420B	45	28681
Barium	92	mg/kg-dry		5		SW6010B	04/20/15 14:18 / sld	04/16/15 16:48	ICP2-HE_150420B	51	28681
Beryllium	ND	mg/kg-dry		5		SW6010B	04/20/15 14:18 / sld	04/16/15 16:48	ICP2-HE_150420B	51	28681
Boron	ND	mg/kg-dry		5		SW6010B	04/20/15 14:18 / sld	04/16/15 16:48	ICP2-HE_150420B	51	28681
Cadmium	1.3	mg/kg-dry	D	0.9		SW6020	04/21/15 00:12 / sld	04/16/15 16:48	ICPMS204-B_150420B	45	28681
Chromium	7	mg/kg-dry		5		SW6020	04/21/15 00:12 / sld	04/16/15 16:48	ICPMS204-B_150420B	45	28681
Cobalt	ND	mg/kg-dry		5		SW6020	04/21/15 00:12 / sld	04/16/15 16:48	ICPMS204-B_150420B	45	28681
Copper	479	mg/kg-dry		5		SW6010B	04/20/15 14:18 / sld	04/16/15 16:48	ICP2-HE_150420B	51	28681
Iron	7380	mg/kg-dry		5		SW6010B	04/20/15 14:18 / sld	04/16/15 16:48	ICP2-HE_150420B	51	28681
Lead	55	mg/kg-dry		5		SW6020	04/21/15 00:12 / sld	04/16/15 16:48	ICPMS204-B_150420B	45	28681
Manganese	466	mg/kg-dry		5		SW6010B	04/20/15 14:18 / sld	04/16/15 16:48	ICP2-HE_150420B	51	28681
Molybdenum	ND	mg/kg-dry		5		SW6020	04/21/15 00:12 / sld	04/16/15 16:48	ICPMS204-B_150420B	45	28681
Nickel	5	mg/kg-dry		5		SW6010B	04/20/15 14:18 / sld	04/16/15 16:48	ICP2-HE_150420B	51	28681
Selenium	ND	mg/kg-dry		5		SW6020	04/21/15 00:12 / sld	04/16/15 16:48	ICPMS204-B_150420B	45	28681
Silver	ND	mg/kg-dry		5		SW6020	04/21/15 00:12 / sld	04/16/15 16:48	ICPMS204-B_150420B	45	28681
Uranium	ND	mg/kg-dry		5		SW6020	04/21/15 00:12 / sld	04/16/15 16:48	ICPMS204-B_150420B	45	28681
Vanadium	15	mg/kg-dry		1		SW6010B	04/20/15 14:18 / sld	04/16/15 16:48	ICP2-HE_150420B	51	28681
Zinc	458	mg/kg-dry		5		SW6010B	04/20/15 14:18 / sld	04/16/15 16:48	ICP2-HE_150420B	51	28681
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	04/22/15 10:35 / rgk	04/21/15 15:21	HGCV201-H_150422A	15	28719

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150331A-SLDS-VSS-W

Date: *27-Apr-15*

Run ID :Run Order: **MISC WC_150331A: 1** SampType: **Method Blank** Lab ID: **MBLK1_150331A** Method: **A2540 E**

Analysis Date: **03/31/15 10:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	ND	1									

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A**

Run ID :Run Order: **MISC WC_150331A: 6** SampType: **Sample Duplicate** Lab ID: **H15030393-004ADUP** Method: **A2540 E**

Analysis Date: **03/31/15 10:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	5	10		0				4.8		30	

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150401A-SLDS-VSS-W

Date: *27-Apr-15*

Run ID :Run Order: **MISC WC_150401A: 1** SampType: **Method Blank** Lab ID: **MBLK1_150401A** Method: **A2540 E**

Analysis Date: **04/01/15 09:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	ND	1									

Associated samples: **H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **MISC WC_150401A: 4** SampType: **Sample Duplicate** Lab ID: **H15030394-011ADUP** Method: **A2540 E**

Analysis Date: **04/01/15 09:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	6	10		0				5.6		30	

Associated samples: **H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150406-Bwa

Date: *27-Apr-15*

Run ID :Run Order: **HGCV202-H_150406B: 8** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **04/06/15 15:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00022	0.00010	0.0002	0	108	90	110				

Associated samples: **H15030394-002B, H15030394-002C, H15030394-003B, H15030394-003C, H15030394-004B, H15030394-004C, H15030394-005B, H15030394-005C, H15030394-006B, H15030394-006C, H15030394-007B, H15030394-007C, H15030394-008B, H15030394-008C, H15030394-009B, H15030394-009C, H15030394-010B, H15030394-010C, H15030394-011B, H15030394-011C**

Run ID :Run Order: **HGCV202-H_150406B: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1** Method: **E245.1**

Analysis Date: **04/06/15 15:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00021	0.00010	0.0002	0	104	95	105				

Associated samples: **H15030394-002B, H15030394-002C, H15030394-003B, H15030394-003C, H15030394-004B, H15030394-004C, H15030394-005B, H15030394-005C, H15030394-006B, H15030394-006C, H15030394-007B, H15030394-007C, H15030394-008B, H15030394-008C, H15030394-009B, H15030394-009C, H15030394-010B, H15030394-010C, H15030394-011B, H15030394-011C**

Run ID :Run Order: **HGCV202-H_150406B: 26** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E245.1**

Analysis Date: **04/06/15 16:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00019	0.00010	0.0002	0	97	90	110				

Associated samples: **H15030394-002B, H15030394-002C, H15030394-003B, H15030394-003C, H15030394-004B, H15030394-004C, H15030394-005B, H15030394-005C, H15030394-006B, H15030394-006C, H15030394-007B, H15030394-007C, H15030394-008B, H15030394-008C, H15030394-009B, H15030394-009C, H15030394-010B, H15030394-010C, H15030394-011B, H15030394-011C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150406wa

Date: *27-Apr-15*

Run ID :Run Order: **HGCV202-H_150406A: 8** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **04/06/15 12:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00021	0.00010	0.0002	0	**105**	90	110				

Associated samples: **H15030394-001B, H15030394-001C**

Run ID :Run Order: **HGCV202-H_150406A: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1** Method: **E245.1**

Analysis Date: **04/06/15 12:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00021	0.00010	0.0002	0	**105**	95	105				

Associated samples: **H15030394-001B, H15030394-001C**

Run ID :Run Order: **HGCV202-H_150406A: 21** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E245.1**

Analysis Date: **04/06/15 13:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00022	0.00010	0.0002	0	**109**	90	110				

Associated samples: **H15030394-001B, H15030394-001C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150407wa

Date: *27-Apr-15*

Run ID :Run Order: **HGCV202-H_150407A: 19** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **04/07/15 11:17** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002	0	102	90	110				

Associated samples: **H15030394-012B, H15030394-012C, H15030394-013B, H15030394-013C, H15030394-014B, H15030394-014C, H15030394-015B, H15030394-015C, H15030394-016B, H15030394-016C**

Run ID :Run Order: **HGCV202-H_150407A: 20** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1** Method: **E245.1**

Analysis Date: **04/07/15 11:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00021	0.00010	0.0002	0	104	95	105				

Associated samples: **H15030394-012B, H15030394-012C, H15030394-013B, H15030394-013C, H15030394-014B, H15030394-014C, H15030394-015B, H15030394-015C, H15030394-016B, H15030394-016C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150415SA

Date: *27-Apr-15*

Run ID :Run Order: **HGCV201-H_150415A: 1** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **04/15/15 09:54** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0010	0.50	0.001	0	102	90	110				

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A**

Run ID :Run Order: **HGCV201-H_150415A: 2** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **04/15/15 09:56** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	101	90	110				

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A**

Run ID :Run Order: **HGCV201-H_150415A: 20** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **04/15/15 10:49** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	101	90	110				

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A**

Run ID :Run Order: **HGCV201-H_150415A: 33** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **04/15/15 11:20** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	102	90	110				

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150422SA2

Date: *27-Apr-15*

Run ID :Run Order: **HGCV201-H_150422B: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **04/22/15 12:46** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00100	0.50	0.001	0	100	90	110				

Associated samples: **H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A**

Run ID :Run Order: **HGCV201-H_150422B: 8** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **04/22/15 12:48** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	99	90	110				

Associated samples: **H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A**

Run ID :Run Order: **HGCV201-H_150422B: 26** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **04/22/15 14:36** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0026	0.50	0.0025	0	102	90	110				

Associated samples: **H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A**

Run ID :Run Order: **HGCV201-H_150422B: 39** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **04/22/15 15:08** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	102	90	110				

Associated samples: **H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A**

Run ID :Run Order: **HGCV201-H_150422B: 43** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **04/22/15 15:22** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	102	90	110				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150422SA2

Date: *27-Apr-15*

Run ID :Run Order: **HGCV201-H_150422B: 43** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **04/22/15 15:22** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150422SA

Date: *27-Apr-15*

Run ID :Run Order: **HGCV201-H_150422A: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **04/22/15 10:10** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00097	0.50	0.001	0	97	90	110				

Associated samples: **H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Run ID :Run Order: **HGCV201-H_150422A: 8** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **04/22/15 10:12** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	100	90	110				

Associated samples: **H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Run ID :Run Order: **HGCV201-H_150422A: 32** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **04/22/15 11:27** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	101	90	110				

Associated samples: **H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Run ID :Run Order: **HGCV201-H_150422A: 40** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **04/22/15 11:46** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0024	0.50	0.0025	0	98	90	110				

Associated samples: **H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28542

Date: *27-Apr-15*

Run ID :Run Order: **FIA203-HE_150401A: 8** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **A4500 N-C**
Analysis Date: **04/01/15 07:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	1.03	0.10	1	0	103	90	110				

Associated samples: **H15030394-001A, H15030394-004A, H15030394-005A, H15030394-010A, H15030394-013A, H15030394-014A**

Run ID :Run Order: **FIA203-HE_150401A: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-28542** Method: **A4500 N-C**
Analysis Date: **04/01/15 07:56** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	16.4	0.30	15.2	0	108	90	110				

Associated samples: **H15030394-001A, H15030394-004A, H15030394-005A, H15030394-010A, H15030394-013A, H15030394-014A**

Run ID :Run Order: **FIA203-HE_150401A: 12** SampType: **Method Blank** Lab ID: **MB-28542** Method: **A4500 N-C**
Analysis Date: **04/01/15 07:57** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	ND	0.005									

Associated samples: **H15030394-001A, H15030394-004A, H15030394-005A, H15030394-010A, H15030394-013A, H15030394-014A**

Run ID :Run Order: **FIA203-HE_150401A: 16** SampType: **Sample Matrix Spike** Lab ID: **H15030393-003Bms** Method: **A4500 N-C**
Analysis Date: **04/01/15 08:02** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	1.00	0.10	1	0	100	90	110				

Associated samples: **H15030394-001A, H15030394-004A, H15030394-005A, H15030394-010A, H15030394-013A, H15030394-014A**

Run ID :Run Order: **FIA203-HE_150401A: 17** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-003Bmsd** Method: **A4500 N-C**
Analysis Date: **04/01/15 08:03** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.985	0.10	1	0	99	90	110	1.002	1.7	20	

Associated samples: **H15030394-001A, H15030394-004A, H15030394-005A, H15030394-010A, H15030394-013A, H15030394-014A**

Run ID :Run Order: **FIA203-HE_150401A: 32** SampType: **Sample Matrix Spike** Lab ID: **H15030394-010Ams** Method: **A4500 N-C**
Analysis Date: **04/01/15 08:21** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.999	0.10	1	0	100	90	110				

Associated samples: **H15030394-001A, H15030394-004A, H15030394-005A, H15030394-010A, H15030394-013A, H15030394-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28542

Date: *27-Apr-15*

Run ID :Run Order: **FIA203-HE_150401A: 33** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-010Amsd** Method: **A4500 N-C**

Analysis Date: **04/01/15 08:22** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.990	0.10	1	0	**99**	90	110	0.9989	**0.9**	20	

Associated samples: **H15030394-001A, H15030394-004A, H15030394-005A, H15030394-010A, H15030394-013A, H15030394-014A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28545

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150401B: 52** SampType: **Method Blank** Lab ID: **MB-28545** Method: **E200.7**

Analysis Date: **04/01/15 16:08** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.003	0.002									
Calcium	0.1	0.06									
Magnesium	ND	0.02									
Potassium	ND	0.07									
Sodium	ND	0.01									

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICP2-HE_150401B: 53** SampType: **Laboratory Control Sample** Lab ID: **LCS-28545** Method: **E200.7**

Analysis Date: **04/01/15 16:12** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.520	0.050	0.5	0.00296	103	85	115				
Calcium	25.9	1.0	25	0.1191	103	85	115				
Magnesium	26.3	1.0	25	0	105	85	115				
Potassium	26.1	1.0	25	0	104	85	115				
Sodium	26.3	1.0	25	0	105	85	115				

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICP2-HE_150401B: 55** SampType: **Serial Dilution** Lab ID: **H15030394-001CDIL** Method: **E200.7**

Analysis Date: **04/01/15 16:19** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.0447	0.050		0		0	0	0.03936		10	N
Calcium	41.6	1.0		0		0	0	43.06	3.3	10	
Magnesium	10.4	1.0		0		0	0	10.92	4.6	10	
Potassium	2.56	1.0		0		0	0	3.394		10	N
Sodium	16.9	1.0		0		0	0	17.79	4.9	10	

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICP2-HE_150401B: 56** SampType: **Sample Matrix Spike** Lab ID: **H15030394-001CMS3** Method: **E200.7**

Analysis Date: **04/01/15 16:23** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.555	0.050	0.5	0.03936	103	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28545

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150401B: 56** SampType: **Sample Matrix Spike** Lab ID: **H15030394-001CMS3** Method: **E200.7**

Analysis Date: **04/01/15 16:23** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	68.5	1.0	25	43.06	102	70	130				
Magnesium	37.1	1.0	25	10.92	105	70	130				
Potassium	29.5	1.0	25	3.394	104	70	130				
Sodium	43.7	1.0	25	17.79	104	70	130				

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICP2-HE_150401B: 57** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-001CMSD3** Method: **E200.7**

Analysis Date: **04/01/15 16:27** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.567	0.050	0.5	0.03936	106	70	130	0.5546	2.2	20	
Calcium	69.3	1.0	25	43.06	105	70	130	68.53	1.2	20	
Magnesium	37.5	1.0	25	10.92	106	70	130	37.1	1.1	20	
Potassium	30.0	1.0	25	3.394	106	70	130	29.48	1.7	20	
Sodium	44.4	1.0	25	17.79	107	70	130	43.68	1.7	20	

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICP2-HE_150401B: 70** SampType: **Serial Dilution** Lab ID: **H15030394-011CDIL** Method: **E200.7**

Analysis Date: **04/01/15 17:16** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.0530	0.050		0		0	0	0.04888		10	N
Calcium	49.1	1.0		0		0	0	48.56	1.0	10	
Magnesium	10.9	1.0		0		0	0	10.9	0.4	10	
Potassium	4.32	1.0		0		0	0	4.808	11	10	R
Sodium	24.4	1.0		0		0	0	24.55	0.6	10	

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICP2-HE_150401B: 73** SampType: **Sample Matrix Spike** Lab ID: **H15030394-011CMS3** Method: **E200.7**

Analysis Date: **04/01/15 17:27** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.569	0.050	0.5	0.04888	104	70	130				
Calcium	75.0	1.0	25	48.56	106	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28545

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150401B: 73** SampType: **Sample Matrix Spike** Lab ID: **H15030394-011CMS3** Method: **E200.7**

Analysis Date: **04/01/15 17:27** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	37.6	1.0	25	10.9	107	70	130				
Potassium	30.9	1.0	25	4.808	104	70	130				
Sodium	50.1	1.0	25	24.55	102	70	130				

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICP2-HE_150401B: 74** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-011CMSD3** Method: **E200.7**

Analysis Date: **04/01/15 17:31** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.562	0.050	0.5	0.04888	103	70	130	0.5692	1.3	20	
Calcium	74.6	1.0	25	48.56	104	70	130	75.03	0.5	20	
Magnesium	37.3	1.0	25	10.9	106	70	130	37.6	0.9	20	
Potassium	31.1	1.0	25	4.808	105	70	130	30.92	0.7	20	
Sodium	50.5	1.0	25	24.55	104	70	130	50.14	0.7	20	

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28545

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150407A: 55** SampType: **Method Blank** Lab ID: **MB-28545** Method: **E200.8**

Analysis Date: **04/07/15 15:51** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	ND	6E-05									
Arsenic	0.00010	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	ND	0.002									
Cadmium	ND	3E-05									
Calcium	ND	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	0.0002	0.0002									
Iron	0.002	0.002									
Lead	5E-05	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	ND	4E-05									
Nickel	ND	3E-05									
Potassium	ND	0.02									
Selenium	0.0006	0.0004									
Silver	9E-05	5E-05									
Sodium	0.03	0.004									
Uranium	ND	5E-05									
Vanadium	0.003	0.0001									
Zinc	ND	0.002									

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICPMS204-B_150407A: 56** SampType: **Laboratory Control Sample** Lab ID: **LCS-28545** Method: **E200.8**

Analysis Date: **04/07/15 15:53** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.63	0.030	2.5	0	**105**	85	115				
Antimony	0.543	0.0010	0.5	0	**109**	85	115				
Arsenic	0.531	0.0010	0.5	0.0000956	**106**	85	115				
Barium	0.516	0.050	0.5	0	**103**	85	115				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28545

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150407A: 56** SampType: **Laboratory Control Sample** Lab ID: **LCS-28545** Method: **E200.8**

Analysis Date: **04/07/15 15:53** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.265	0.0010	0.25	0	106	85	115				
Boron	0.537	0.050	0.5	0	107	85	115				
Cadmium	0.264	0.0010	0.25	0	105	85	115				
Calcium	26.6	1.0	25	0	106	85	115				
Chromium	0.537	0.0050	0.5	0	107	85	115				
Cobalt	0.529	0.0050	0.5	0	106	85	115				
Copper	0.512	0.0050	0.5	0.0001726	102	85	115				
Iron	2.56	0.020	2.5	0.002136	102	85	115				
Lead	0.540	0.0010	0.5	0.0000512	108	85	115				
Magnesium	26.2	1.0	25	0	105	85	115				
Manganese	2.64	0.0010	2.5	0	106	85	115				
Molybdenum	0.527	0.0010	0.5	0	105	85	115				
Nickel	0.510	0.0050	0.5	0	102	85	115				
Potassium	25.8	1.0	25	0	103	85	115				
Selenium	0.547	0.0010	0.5	0.0005789	109	85	115				
Silver	0.0487	0.0010	0.05	0.0000856	97	85	115				
Sodium	25.4	1.0	25	0.02787	101	85	115				
Uranium	0.529	0.00030	0.5	0	106	85	115				
Vanadium	0.538	0.010	0.5	0.002829	107	85	115				
Zinc	0.510	0.010	0.5	0	102	85	115				

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICPMS204-B_150407A: 64** SampType: **Sample Matrix Spike** Lab ID: **H15030394-001CMS3** Method: **E200.8**

Analysis Date: **04/07/15 16:13** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.71	0.030	2.5	0.06862	105	70	130				
Antimony	0.547	0.0010	0.5	0.0001863	109	70	130				
Arsenic	0.531	0.0010	0.5	0.004706	105	70	130				
Barium	0.553	0.050	0.5	0.03618	103	70	130				
Beryllium	0.265	0.0010	0.25	0	106	70	130				
Boron	0.569	0.050	0.5	0.04121	106	70	130				
Cadmium	0.261	0.0010	0.25	0.0000782	104	70	130				
Calcium	68.6	1.0	25	43.14	102	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28545

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150407A: 64** SampType: **Sample Matrix Spike** Lab ID: **H15030394-001CMS3** Method: **E200.8**

Analysis Date: **04/07/15 16:13** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.535	0.0050	0.5	0.0003113	107	70	130				
Cobalt	0.526	0.0050	0.5	0.0000737	105	70	130				
Copper	0.505	0.0050	0.5	0.007319	100	70	130				
Iron	3.00	0.020	2.5	0.4767	101	70	130				
Lead	0.533	0.0010	0.5	0.001134	106	70	130				
Magnesium	36.5	1.0	25	10.97	102	70	130				
Manganese	2.68	0.0010	2.5	0.06765	104	70	130				
Molybdenum	0.540	0.0010	0.5	0.005593	107	70	130				
Nickel	0.504	0.0050	0.5	0.0004165	101	70	130				
Potassium	29.0	1.0	25	3.792	101	70	130				
Selenium	0.533	0.0010	0.5	0.000483	107	70	130				
Silver	0.0481	0.0010	0.05	0	96	70	130				
Sodium	42.0	1.0	25	17.51	98	70	130				
Uranium	0.538	0.00030	0.5	0.004423	107	70	130				
Vanadium	0.540	0.010	0.5	0.003767	107	70	130				
Zinc	0.512	0.010	0.5	0.02297	98	70	130				

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICPMS204-B_150407A: 65** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-001CMSD3** Method: **E200.8**

Analysis Date: **04/07/15 16:15** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.70	0.030	2.5	0.06862	105	70	130	2.706	0.3	20	
Antimony	0.547	0.0010	0.5	0.0001863	109	70	130	0.5469	0.1	20	
Arsenic	0.531	0.0010	0.5	0.004706	105	70	130	0.5314	0.1	20	
Barium	0.555	0.050	0.5	0.03618	104	70	130	0.5526	0.5	20	
Beryllium	0.268	0.0010	0.25	0	107	70	130	0.2649	1.2	20	
Boron	0.578	0.050	0.5	0.04121	107	70	130	0.5695	1.5	20	
Cadmium	0.261	0.0010	0.25	0.0000782	104	70	130	0.2606	0.1	20	
Calcium	68.1	1.0	25	43.14	100	70	130	68.58	0.8	20	
Chromium	0.528	0.0050	0.5	0.0003113	106	70	130	0.5347	1.2	20	
Cobalt	0.525	0.0050	0.5	0.0000737	105	70	130	0.5258	0.2	20	
Copper	0.508	0.0050	0.5	0.007319	100	70	130	0.5053	0.6	20	
Iron	2.98	0.020	2.5	0.4767	100	70	130	3.005	0.8	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28545

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150407A: 65** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-001CMSD3** Method: **E200.8**

Analysis Date: **04/07/15 16:15** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.532	0.0010	0.5	0.001134	**106**	70	130	0.533	**0.2**	20	
Magnesium	36.7	1.0	25	10.97	**103**	70	130	36.49	**0.5**	20	
Manganese	2.66	0.0010	2.5	0.06765	**104**	70	130	2.678	**0.7**	20	
Molybdenum	0.539	0.0010	0.5	0.005593	**107**	70	130	0.5395	**0.0**	20	
Nickel	0.502	0.0050	0.5	0.0004165	**100**	70	130	0.504	**0.4**	20	
Potassium	28.6	1.0	25	3.792	**99**	70	130	28.96	**1.1**	20	
Selenium	0.535	0.0010	0.5	0.000483	**107**	70	130	0.5334	**0.3**	20	
Silver	0.0483	0.0010	0.05	0	**97**	70	130	0.04811	**0.4**	20	
Sodium	42.5	1.0	25	17.51	**100**	70	130	42.04	**1.1**	20	
Uranium	0.539	0.00030	0.5	0.004423	**107**	70	130	0.5385	**0.1**	20	
Vanadium	0.536	0.010	0.5	0.003767	**107**	70	130	0.5398	**0.7**	20	
Zinc	0.508	0.010	0.5	0.02297	**97**	70	130	0.5125	**0.9**	20	

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICPMS204-B_150408A: 131** SampType: **Method Blank** Lab ID: **MB-28545** Method: **E200.8**

Analysis Date: **04/08/15 15:14** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	7E-05	6E-05									
Arsenic	0.0002	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	ND	0.002									
Cadmium	ND	1E-05									
Calcium	0.01	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	0.0002	0.0002									
Iron	ND	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	ND	4E-05									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28545

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150408A: 131** SampType: **Method Blank** Lab ID: **MB-28545** Method: **E200.8**

Analysis Date: **04/08/15 15:14** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	ND	3E-05									
Potassium	ND	0.02									
Selenium	ND	0.0004									
Silver	0.0001	5E-05									
Sodium	0.02	0.004									
Uranium	ND	5E-05									
Vanadium	0.002	0.0001									
Zinc	ND	0.002									

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICPMS204-B_150408A: 166** SampType: **Sample Matrix Spike** Lab ID: **H15030394-011CMS3** Method: **E200.8**

Analysis Date: **04/08/15 16:49** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.89	0.030	2.5	0.348	**102**	70	130				
Antimony	0.529	0.0010	0.5	0.0003276	**106**	70	130				
Arsenic	0.515	0.0010	0.5	0.007113	**102**	70	130				
Barium	0.533	0.050	0.5	0.03645	**99**	70	130				
Beryllium	0.263	0.0010	0.25	0	**105**	70	130				
Boron	0.577	0.050	0.5	0.04897	**106**	70	130				
Cadmium	0.261	0.0010	0.25	0.0003112	**104**	70	130				
Calcium	69.1	1.0	25	45.63	**94**	70	130				
Chromium	0.522	0.0050	0.5	0.0006521	**104**	70	130				
Cobalt	0.517	0.0050	0.5	0.0002769	**103**	70	130				
Copper	0.524	0.0050	0.5	0.02158	**100**	70	130				
Iron	2.94	0.020	2.5	0.4988	**98**	70	130				
Lead	0.515	0.0010	0.5	0.001473	**103**	70	130				
Magnesium	35.6	1.0	25	10.76	**100**	70	130				
Manganese	2.72	0.0010	2.5	0.2174	**100**	70	130				
Molybdenum	0.526	0.0010	0.5	0.004264	**104**	70	130				
Nickel	0.495	0.0050	0.5	0.001025	**99**	70	130				
Potassium	28.4	1.0	25	4.756	**95**	70	130				
Selenium	0.496	0.0010	0.5	0	**99**	70	130				
Silver	0.0481	0.0010	0.05	0.0000696	**96**	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28545

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150408A: 166** SampType: **Sample Matrix Spike** Lab ID: **H15030394-011CMS3** Method: **E200.8**

Analysis Date: **04/08/15 16:49** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	47.5	1.0	25	23.86	95	70	130				
Uranium	0.501	0.00030	0.5	0.004145	99	70	130				
Vanadium	0.529	0.010	0.5	0.004246	105	70	130				
Zinc	0.549	0.010	0.5	0.0616	97	70	130				

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICPMS204-B_150408A: 167** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-011CMSD3** Method: **E200.8**

Analysis Date: **04/08/15 16:52** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.93	0.030	2.5	0.348	103	70	130	2.889	1.4	20	
Antimony	0.540	0.0010	0.5	0.0003276	108	70	130	0.5289	2.1	20	
Arsenic	0.526	0.0010	0.5	0.007113	104	70	130	0.5153	2.1	20	
Barium	0.545	0.050	0.5	0.03645	102	70	130	0.5334	2.2	20	
Beryllium	0.260	0.0010	0.25	0	104	70	130	0.2634	1.1	20	
Boron	0.575	0.050	0.5	0.04897	105	70	130	0.5773	0.4	20	
Cadmium	0.264	0.0010	0.25	0.0003112	106	70	130	0.2613	1.1	20	
Calcium	70.3	1.0	25	45.63	99	70	130	69.06	1.8	20	
Chromium	0.532	0.0050	0.5	0.0006521	106	70	130	0.5221	2.0	20	
Cobalt	0.532	0.0050	0.5	0.0002769	106	70	130	0.5171	2.9	20	
Copper	0.535	0.0050	0.5	0.02158	103	70	130	0.5236	2.2	20	
Iron	3.01	0.020	2.5	0.4988	101	70	130	2.939	2.5	20	
Lead	0.523	0.0010	0.5	0.001473	104	70	130	0.5149	1.6	20	
Magnesium	36.1	1.0	25	10.76	101	70	130	35.64	1.2	20	
Manganese	2.75	0.0010	2.5	0.2174	101	70	130	2.724	0.8	20	
Molybdenum	0.536	0.0010	0.5	0.004264	106	70	130	0.5264	1.7	20	
Nickel	0.502	0.0050	0.5	0.001025	100	70	130	0.4954	1.4	20	
Potassium	29.3	1.0	25	4.756	98	70	130	28.41	3.1	20	
Selenium	0.503	0.0010	0.5	0	101	70	130	0.4965	1.4	20	
Silver	0.0490	0.0010	0.05	0.0000696	98	70	130	0.04811	1.8	20	
Sodium	48.3	1.0	25	23.86	98	70	130	47.52	1.6	20	
Uranium	0.511	0.00030	0.5	0.004145	101	70	130	0.5008	2.1	20	
Vanadium	0.531	0.010	0.5	0.004246	105	70	130	0.5294	0.3	20	
Zinc	0.553	0.010	0.5	0.0616	98	70	130	0.5489	0.7	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28545

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150408A: 167** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-011CMSD3** Method: **E200.8**

Analysis Date: **04/08/15 16:52** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28547

Date: *27-Apr-15*

Run ID :Run Order: **FIA202-HE_150401A: 12** SampType: **Laboratory Control Sample** Lab ID: **LCS-28547** Method: **E365.1**

Analysis Date: **04/01/15 07:55** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.429	0.010	0.4	0.00142	107	90	110				

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D**

Run ID :Run Order: **FIA202-HE_150401A: 13** SampType: **Method Blank** Lab ID: **MB-28547** Method: **E365.1**

Analysis Date: **04/01/15 07:56** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.001	0.001									

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D**

Run ID :Run Order: **FIA202-HE_150401A: 17** SampType: **Sample Matrix Spike** Lab ID: **H15030393-003EMS** Method: **E365.1**

Analysis Date: **04/01/15 08:00** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.210	0.010	0.2	0.00264	103	90	110				

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D**

Run ID :Run Order: **FIA202-HE_150401A: 18** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-003EMSD** Method: **E365.1**

Analysis Date: **04/01/15 08:01** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.202	0.010	0.2	0.00264	100	90	110	0.2096	3.7	20	

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D**

Run ID :Run Order: **FIA202-HE_150401A: 33** SampType: **Sample Matrix Spike** Lab ID: **H15030394-010DMS** Method: **E365.1**

Analysis Date: **04/01/15 08:17** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.218	0.010	0.2	0.00184	108	90	110				

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28547

Date: *27-Apr-15*

Run ID :Run Order: **FIA202-HE_150401A: 34** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-010DMSD** Method: **E365.1**

Analysis Date: **04/01/15 08:18** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.209	0.010	0.2	0.00184	**103**	90	110	0.2179	**4.2**	20	

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28548

Date: *27-Apr-15*

Run ID :Run Order: **FIA202-HE_150401A: 42** SampType: **Laboratory Control Sample** Lab ID: **LCS-28548** Method: **E365.1**
Analysis Date: **04/01/15 08:26** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.437	0.010	0.4	0.00173	**109**	90	110				

Associated samples: **H15030394-016D**

Run ID :Run Order: **FIA202-HE_150401A: 43** SampType: **Method Blank** Lab ID: **MB-28548** Method: **E365.1**
Analysis Date: **04/01/15 08:27** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.002	0.001									

Associated samples: **H15030394-016D**

Run ID :Run Order: **FIA202-HE_150401A: 45** SampType: **Sample Matrix Spike** Lab ID: **H15030394-016DMS** Method: **E365.1**
Analysis Date: **04/01/15 08:29** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.410	0.010	0.2	0.1941	**108**	90	110				

Associated samples: **H15030394-016D**

Run ID :Run Order: **FIA202-HE_150401A: 46** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-016DMSD** Method: **E365.1**
Analysis Date: **04/01/15 08:30** Units: **mg/L** **Prep Info:** Prep Date: **3/31/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.413	0.010	0.2	0.1941	**109**	90	110	0.4101	**0.6**	20	

Associated samples: **H15030394-016D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28562

Date: *27-Apr-15*

Run ID :Run Order: **FIA203-HE_150401D: 8** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **A4500 N-C**
Analysis Date: **04/01/15 13:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	1.04	0.10	1	0	104	90	110				

Associated samples: **H15030394-002A, H15030394-003A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-011A, H15030394-012A**

Run ID :Run Order: **FIA203-HE_150401D: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**
Analysis Date: **04/01/15 13:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.533	0.10	0.5	0	107	90	110				

Associated samples: **H15030394-002A, H15030394-003A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-011A, H15030394-012A**

Run ID :Run Order: **FIA203-HE_150401D: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**
Analysis Date: **04/01/15 13:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	-0.0504	0.10		0		0	0				

Associated samples: **H15030394-002A, H15030394-003A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-011A, H15030394-012A**

Run ID :Run Order: **FIA203-HE_150401D: 12** SampType: **Method Blank** Lab ID: **MB-28562** Method: **A4500 N-C**
Analysis Date: **04/01/15 13:49** Units: **mg/L** **Prep Info:** Prep Date: **4/1/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	ND	0.005									

Associated samples: **H15030394-002A, H15030394-003A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-011A, H15030394-012A**

Run ID :Run Order: **FIA203-HE_150401D: 14** SampType: **Sample Duplicate** Lab ID: **H15030267-006ADUP** Method: **A4500 N-C**
Analysis Date: **04/01/15 13:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	58.0	1.5		0				58.85	1.5	20	

Associated samples: **H15030394-002A, H15030394-003A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-011A, H15030394-012A**

Run ID :Run Order: **FIA203-HE_150401D: 18** SampType: **Sample Matrix Spike** Lab ID: **H15030394-006AMS** Method: **A4500 N-C**
Analysis Date: **04/01/15 13:56** Units: **mg/L** **Prep Info:** Prep Date: **4/1/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	8.18	0.15	5	3.182	100	90	110				

Associated samples: **H15030394-002A, H15030394-003A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-011A, H15030394-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28562

Date: *27-Apr-15*

Run ID :Run Order: **FIA203-HE_150401D: 19** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-006AMSD** Method: **A4500 N-C**

Analysis Date: **04/01/15 13:57** Units: **mg/L** **Prep Info:** Prep Date: **4/1/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	7.94	0.15	5	3.182	**95**	90	110	8.18	**2.9**	20	

Associated samples: **H15030394-002A, H15030394-003A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-011A, H15030394-012A**

Run ID :Run Order: **FIA203-HE_150401D: 26** SampType: **Laboratory Control Sample** Lab ID: **LCS-28562** Method: **A4500 N-C**

Analysis Date: **04/01/15 14:06** Units: **mg/L** **Prep Info:** Prep Date: **4/1/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	16.2	0.30	15.2	0	**107**	90	110				

Associated samples: **H15030394-002A, H15030394-003A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-011A, H15030394-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28571

Date: *27-Apr-15*

Run ID :Run Order: **HGCV202-H_150406A: 11** SampType: **Method Blank** Lab ID: **MB-28571** Method: **E245.1**
Analysis Date: **04/06/15 12:41** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5E-06	1E-06									

Associated samples: **H15030394-001B, H15030394-001C**

Run ID :Run Order: **HGCV202-H_150406A: 12** SampType: **Laboratory Control Sample** Lab ID: **LCS-28571** Method: **E245.1**
Analysis Date: **04/06/15 12:44** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00014	0.00010	0.00015	0.00000498	92	90	110				

Associated samples: **H15030394-001B, H15030394-001C**

Run ID :Run Order: **HGCV202-H_150406A: 24** SampType: **Sample Matrix Spike** Lab ID: **H15030393-002CMS** Method: **E245.1**
Analysis Date: **04/06/15 13:29** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00015	0.00010	0.00015	0.00000736	96	70	130				

Associated samples: **H15030394-001B, H15030394-001C**

Run ID :Run Order: **HGCV202-H_150406A: 25** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-002CMSD** Method: **E245.1**
Analysis Date: **04/06/15 13:33** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00017	0.00010	0.00015	0.00000736	105	70	130	0.0001517	8.7	20	

Associated samples: **H15030394-001B, H15030394-001C**

Run ID :Run Order: **HGCV202-H_150406B: 42** SampType: **Method Blank** Lab ID: **MB-28571** Method: **E245.1**
Analysis Date: **04/06/15 17:35** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2E-06	1E-06									

Associated samples: **H15030394-001B, H15030394-001C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28572

Date: *27-Apr-15*

Run ID :Run Order: **HGCV202-H_150406B: 11** SampType: **Method Blank** Lab ID: **MB-28572** Method: **E245.1**
Analysis Date: **04/06/15 15:20** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	1E-06									

Associated samples: **H15030394-002B, H15030394-002C, H15030394-003B, H15030394-003C, H15030394-004B, H15030394-004C, H15030394-005B, H15030394-005C, H15030394-006B, H15030394-006C, H15030394-007B, H15030394-007C, H15030394-008B, H15030394-008C, H15030394-009B, H15030394-009C, H15030394-010B, H15030394-010C, H15030394-011B, H15030394-011C**

Run ID :Run Order: **HGCV202-H_150406B: 13** SampType: **Laboratory Control Sample** Lab ID: **LCS-28572** Method: **E245.1**
Analysis Date: **04/06/15 15:32** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00014	0.00010	0.00015	0	90	90	110				

Associated samples: **H15030394-002B, H15030394-002C, H15030394-003B, H15030394-003C, H15030394-004B, H15030394-004C, H15030394-005B, H15030394-005C, H15030394-006B, H15030394-006C, H15030394-007B, H15030394-007C, H15030394-008B, H15030394-008C, H15030394-009B, H15030394-009C, H15030394-010B, H15030394-010C, H15030394-011B, H15030394-011C**

Run ID :Run Order: **HGCV202-H_150406B: 15** SampType: **Sample Matrix Spike** Lab ID: **H15030394-002BMS** Method: **E245.1**
Analysis Date: **04/06/15 15:41** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00013	0.00010	0.00015	0.00000144	89	70	130				

Associated samples: **H15030394-002B, H15030394-002C, H15030394-003B, H15030394-003C, H15030394-004B, H15030394-004C, H15030394-005B, H15030394-005C, H15030394-006B, H15030394-006C, H15030394-007B, H15030394-007C, H15030394-008B, H15030394-008C, H15030394-009B, H15030394-009C, H15030394-010B, H15030394-010C, H15030394-011B, H15030394-011C**

Run ID :Run Order: **HGCV202-H_150406B: 16** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-002BMSD** Method: **E245.1**
Analysis Date: **04/06/15 15:45** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00014	0.00010	0.00015	0.00000144	90	70	130	0.000135	1.0	20	

Associated samples: **H15030394-002B, H15030394-002C, H15030394-003B, H15030394-003C, H15030394-004B, H15030394-004C, H15030394-005B, H15030394-005C, H15030394-006B, H15030394-006C, H15030394-007B, H15030394-007C, H15030394-008B, H15030394-008C, H15030394-009B, H15030394-009C, H15030394-010B, H15030394-010C, H15030394-011B, H15030394-011C**

Run ID :Run Order: **HGCV202-H_150406B: 29** SampType: **Sample Matrix Spike** Lab ID: **H15030394-007BMS** Method: **E245.1**
Analysis Date: **04/06/15 16:40** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00014	0.00010	0.00015	0.00000181	92	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28572

Date: *27-Apr-15*

Run ID :Run Order: **HGCV202-H_150406B: 29** SampType: **Sample Matrix Spike** Lab ID: **H15030394-007BMS** Method: **E245.1**

Analysis Date: **04/06/15 16:40** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15030394-002B, H15030394-002C, H15030394-003B, H15030394-003C, H15030394-004B, H15030394-004C, H15030394-005B, H15030394-005C, H15030394-006B, H15030394-006C, H15030394-007B, H15030394-007C, H15030394-008B, H15030394-008C, H15030394-009B, H15030394-009C, H15030394-010B, H15030394-010C, H15030394-011B, H15030394-011C**

Run ID :Run Order: **HGCV202-H_150406B: 30** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-007BMSD** Method: **E245.1**

Analysis Date: **04/06/15 16:44** Units: **mg/L** **Prep Info:** Prep Date: **4/2/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00014	0.00010	0.00015	0.00000181	**89**	70	130	0.0001405	**3.8**	20	

Associated samples: **H15030394-002B, H15030394-002C, H15030394-003B, H15030394-003C, H15030394-004B, H15030394-004C, H15030394-005B, H15030394-005C, H15030394-006B, H15030394-006C, H15030394-007B, H15030394-007C, H15030394-008B, H15030394-008C, H15030394-009B, H15030394-009C, H15030394-010B, H15030394-010C, H15030394-011B, H15030394-011C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28587

Date: *27-Apr-15*

Run ID :Run Order: **FIA203-HE_150403A: 8** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **A4500 N-C**
Analysis Date: **04/03/15 10:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.948	0.10	1	0	95	90	110				

Associated samples: **H15030394-016A**

Run ID :Run Order: **FIA203-HE_150403A: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**
Analysis Date: **04/03/15 10:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.532	0.10	0.5	0	106	90	110				

Associated samples: **H15030394-016A**

Run ID :Run Order: **FIA203-HE_150403A: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**
Analysis Date: **04/03/15 10:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	-0.00891	0.10		0		0	0				

Associated samples: **H15030394-016A**

Run ID :Run Order: **FIA203-HE_150403A: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-28587** Method: **A4500 N-C**
Analysis Date: **04/03/15 10:29** Units: **mg/L** **Prep Info:** Prep Date: **4/3/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	15.5	0.30	15.2	0	102	90	110				

Associated samples: **H15030394-016A**

Run ID :Run Order: **FIA203-HE_150403A: 12** SampType: **Method Blank** Lab ID: **MB-28587** Method: **A4500 N-C**
Analysis Date: **04/03/15 10:30** Units: **mg/L** **Prep Info:** Prep Date: **4/3/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	ND	0.005									

Associated samples: **H15030394-016A**

Run ID :Run Order: **FIA203-HE_150403A: 19** SampType: **Sample Matrix Spike** Lab ID: **H15040026-005Cms** Method: **A4500 N-C**
Analysis Date: **04/03/15 10:38** Units: **mg/L** **Prep Info:** Prep Date: **4/3/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.924	0.10	1	0	92	90	110				

Associated samples: **H15030394-016A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28587

Date: *27-Apr-15*

Run ID :Run Order: **FIA203-HE_150403A: 20** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15040026-005Cmsd** Method: **A4500 N-C**

Analysis Date: **04/03/15 10:39** Units: **mg/L** **Prep Info:** Prep Date: **4/3/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.910	0.10	1	0	**91**	90	110	0.9245	**1.5**	20	

Associated samples: **H15030394-016A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28595

Date: *27-Apr-15*

Run ID :Run Order: **HGCV202-H_150407A: 23** SampType: **Method Blank** Lab ID: **MB-28595** Method: **E245.1**
Analysis Date: **04/07/15 11:44** Units: **mg/L** **Prep Info:** Prep Date: **4/6/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	1E-06									

Associated samples: **H15030394-012B, H15030394-012C, H15030394-013B, H15030394-013C, H15030394-014B, H15030394-014C, H15030394-015B, H15030394-015C, H15030394-016B, H15030394-016C**

Run ID :Run Order: **HGCV202-H_150407A: 24** SampType: **Laboratory Control Sample** Lab ID: **LCS-28595** Method: **E245.1**
Analysis Date: **04/07/15 11:47** Units: **mg/L** **Prep Info:** Prep Date: **4/6/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00015	0.00010	0.00015	0	97	90	110				

Associated samples: **H15030394-012B, H15030394-012C, H15030394-013B, H15030394-013C, H15030394-014B, H15030394-014C, H15030394-015B, H15030394-015C, H15030394-016B, H15030394-016C**

Run ID :Run Order: **HGCV202-H_150407A: 26** SampType: **Sample Matrix Spike** Lab ID: **H15030394-012BMS** Method: **E245.1**
Analysis Date: **04/07/15 11:55** Units: **mg/L** **Prep Info:** Prep Date: **4/6/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00014	0.00010	0.00015	0	95	70	130				

Associated samples: **H15030394-012B, H15030394-012C, H15030394-013B, H15030394-013C, H15030394-014B, H15030394-014C, H15030394-015B, H15030394-015C, H15030394-016B, H15030394-016C**

Run ID :Run Order: **HGCV202-H_150407A: 27** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-012BMSD** Method: **E245.1**
Analysis Date: **04/07/15 11:59** Units: **mg/L** **Prep Info:** Prep Date: **4/6/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00015	0.00010	0.00015	0	103	70	130	0.0001426	8.2	20	

Associated samples: **H15030394-012B, H15030394-012C, H15030394-013B, H15030394-013C, H15030394-014B, H15030394-014C, H15030394-015B, H15030394-015C, H15030394-016B, H15030394-016C**

Run ID :Run Order: **HGCV202-H_150407A: 40** SampType: **Sample Matrix Spike** Lab ID: **H15040010-001CMS** Method: **E245.1**
Analysis Date: **04/07/15 12:48** Units: **mg/L** **Prep Info:** Prep Date: **4/6/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00013	0.00010	0.00015	0	87	70	130				

Associated samples: **H15030394-012B, H15030394-012C, H15030394-013B, H15030394-013C, H15030394-014B, H15030394-014C, H15030394-015B, H15030394-015C, H15030394-016B, H15030394-016C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28595

Date: *27-Apr-15*

Run ID :Run Order: **HGCV202-H_150407A: 41** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15040010-001CMSD** Method: **E245.1**

Analysis Date: **04/07/15 12:52** Units: **mg/L** **Prep Info:** Prep Date: **4/6/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00013	0.00010	0.00015	0	**86**	70	130	0.0001298	**0.7**	20	

Associated samples: **H15030394-012B, H15030394-012C, H15030394-013B, H15030394-013C, H15030394-014B, H15030394-014C, H15030394-015B, H15030394-015C, H15030394-016B, H15030394-016C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28623

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 19** SampType: **Method Blank** Lab ID: **MB-28623** Method: **SW6010B**

Analysis Date: **04/13/15 12:24** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.4	0.3									
Barium	0.03	0.02									
Beryllium	ND	0.009									
Boron	ND	0.1									
Cobalt	ND	0.1									
Copper	0.3	0.2									
Iron	5	0.6									
Manganese	ND	0.02									
Nickel	ND	0.07									

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A**

Run ID :Run Order: **ICP2-HE_150413B: 20** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28623** Method: **SW6010B**

Analysis Date: **04/13/15 12:28** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	253	5.0	250	0.3545	**101**	80	120				
Barium	49.8	1.0	50	0.03	**100**	80	120				
Beryllium	25.0	1.0	25	0	**100**	80	120				
Boron	48.3	1.0	50	0	**97**	80	120				
Cobalt	47.6	1.0	50	0	**95**	80	120				
Copper	49.3	1.0	50	0.3095	**98**	80	120				
Iron	249	5.0	250	4.836	**98**	80	120				
Manganese	242	1.0	250	0	**97**	80	120				
Nickel	46.6	1.0	50	0	**93**	80	120				

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A**

Run ID :Run Order: **ICP2-HE_150413B: 21** SampType: **Laboratory Control Sample** Lab ID: **LCS-28623** Method: **SW6010B**

Analysis Date: **04/13/15 12:31** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	12600	5.0	14700	0.3545	**86**	50.7	131.3				
Barium	553	1.0	614	0.03	**90**	80.6	112.2				
Beryllium	45.0	1.0	51	0	**88**	76.3	108.6				
Boron	72.0	1.0	93.2	0	**77**	59.4	101.9				
Cobalt	47.4	1.0	57.4	0	**83**	73.3	103.7				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28623

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 21** SampType: **Laboratory Control Sample** Lab ID: **LCS-28623** Method: **SW6010B**

Analysis Date: **04/13/15 12:31** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	247	1.1	280	0.3095	88	77.5	109.6				
Iron	19100	5.0	23000	4.836	83	39.6	138.3				
Manganese	358	1.0	369	0	97	80.8	115.7				
Nickel	50.0	1.0	61	0	82	72.3	103.4				

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A**

Run ID :Run Order: **ICP2-HE_150413B: 35** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030393-014APDS** Method: **SW6010B**

Analysis Date: **04/13/15 13:24** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	10100	5.0	1598	8459		75	125				A
Barium	428	1.0	319.6	128.3	94	75	125				
Beryllium	148	1.0	159.8	0.3307	92	75	125				
Boron	293	1.0	319.6	2.918	91	75	125				
Cobalt	285	1.0	319.6	0.8694	89	75	125				
Copper	321	1.4	319.6	26.31	92	75	125				
Iron	13100	5.0	1598	11620		75	125				A
Manganese	1580	1.0	1598	139.5	90	75	125				
Nickel	285	1.0	319.6	9.249	86	75	125				

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A**

Run ID :Run Order: **ICP2-HE_150413B: 36** SampType: **Sample Matrix Spike** Lab ID: **H15030393-014AMS** Method: **SW6010B**

Analysis Date: **04/13/15 13:27** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	10600	5.0	310.3	8459		75	125				A
Barium	211	1.0	62.05	128.3	134	75	125				S
Beryllium	31.4	1.0	31.03	0.3307	100	75	125				
Boron	61.0	1.0	62.05	2.918	94	75	125				
Cobalt	60.5	1.0	62.05	0.8694	96	75	125				
Copper	72.4	1.4	62.05	26.31	74	75	125				S
Iron	11500	5.0	310.3	11620		75	125				A
Manganese	445	1.0	310.3	139.5	98	75	125				
Nickel	67.2	1.0	62.05	9.249	93	75	125				

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28623

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 37** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-014AMSD** Method: **SW6010B**

Analysis Date: **04/13/15 13:31** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9640	5.0	310.3	8459		75	125	10560	9.1	20	A
Barium	201	1.0	62.05	128.3	117	75	125	211.3	5.0	20	
Beryllium	31.4	1.0	31.03	0.3307	100	75	125	31.44	0.1	20	
Boron	59.2	1.0	62.05	2.918	91	75	125	60.99	3.0	20	
Cobalt	58.4	1.0	62.05	0.8694	93	75	125	60.52	3.6	20	
Copper	71.9	1.4	62.05	26.31	73	75	125	72.38	0.7	20	S
Iron	9720	5.0	310.3	11620		75	125	11470	17	20	A
Manganese	451	1.0	310.3	139.5	100	75	125	445	1.4	20	
Nickel	63.8	1.0	62.05	9.249	88	75	125	67.16	5.1	20	

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28623

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 35** SampType: **Method Blank** Lab ID: **MB-28623** Method: **SW6020**

Analysis Date: **04/13/15 16:23** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.2	0.05									
Cadmium	ND	0.2									
Chromium	0.08	0.04									
Lead	ND	0.10									
Molybdenum	ND	0.09									
Selenium	0.2	0.2									
Silver	0.07	0.05									
Uranium	ND	0.06									
Vanadium	5										

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A**

Run ID :Run Order: **ICPMS204-B_150413C: 37** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28623** Method: **SW6020**

Analysis Date: **04/13/15 16:28** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	55.5	1.0	50	0	**111**	80	120				
Arsenic	50.4	1.0	50	0.2148	**100**	80	120				
Cadmium	27.0	1.0	25	0	**108**	80	120				
Chromium	49.2	1.0	50	0.0775	**98**	80	120				
Lead	51.9	1.0	50	0	**104**	80	120				
Molybdenum	51.4	1.0	50	0	**103**	80	120				
Selenium	50.5	1.0	50	0.206	**101**	80	120				
Silver	25.4	1.0	25	0.06955	**102**	80	120				
Uranium	54.4	1.0	50	0	**109**	80	120				
Vanadium	51.5	1.0	50	4.742	**94**	80	120				

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A**

Run ID :Run Order: **ICPMS204-B_150413C: 43** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030393-014APDS** Method: **SW6020**

Analysis Date: **04/13/15 16:43** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	666	1.0	635.6	0.1314	**105**	75	125				
Arsenic	644	1.0	635.6	26.71	**97**	75	125				
Cadmium	307	1.0	317.8	0	**97**	75	125				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28623

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 43** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030393-014APDS** Method: **SW6020**

Analysis Date: **04/13/15 16:43** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	618	1.0	635.6	13.98	95	75	125				
Lead	631	1.0	635.6	4.743	99	75	125				
Molybdenum	627	1.0	635.6	0.1396	99	75	125				
Selenium	602	1.0	635.6	0.7563	95	75	125				
Silver	179	1.0	317.8	0.0715	56	75	125				S
Uranium	672	1.0	635.6	1.093	106	75	125				
Vanadium	667	1.0	635.6	58.34	96	75	125				

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A**

Run ID :Run Order: **ICPMS204-B_150413C: 44** SampType: **Sample Matrix Spike** Lab ID: **H15030393-014AMS** Method: **SW6020**

Analysis Date: **04/13/15 16:45** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	49.2	1.0	63.56	0.1314	77	75	125				
Arsenic	75.2	1.0	63.56	26.71	76	75	125				
Cadmium	33.2	1.0	31.78	0	104	75	125				
Chromium	80.1	1.0	63.56	13.98	104	75	125				
Lead	72.0	1.0	63.56	4.743	106	75	125				
Molybdenum	65.8	1.0	63.56	0.1396	103	75	125				
Selenium	64.7	1.0	63.56	0.7563	101	75	125				
Silver	32.9	1.0	31.78	0.0715	103	75	125				
Uranium	71.2	1.0	63.56	1.093	110	75	125				
Vanadium	90.7	1.0	63.56	58.34	51	75	125				S

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A**

Run ID :Run Order: **ICPMS204-B_150413C: 45** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-014AMSD** Method: **SW6020**

Analysis Date: **04/13/15 16:48** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	48.1	1.0	63.56	0.1314	75	75	125	49.16	2.2	20	
Arsenic	69.8	1.0	63.56	26.71	68	75	125	75.19	7.5	20	S
Cadmium	31.7	1.0	31.78	0	100	75	125	33.19	4.5	20	
Chromium	73.6	1.0	63.56	13.98	94	75	125	80.15	8.5	20	
Lead	69.0	1.0	63.56	4.743	101	75	125	72.01	4.2	20	
Molybdenum	63.4	1.0	63.56	0.1396	100	75	125	65.85	3.8	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28623

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 45** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-014AMSD** Method: **SW6020**

Analysis Date: **04/13/15 16:48** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	61.7	1.0	63.56	0.7563	96	75	125	64.7	4.7	20	
Silver	31.6	1.0	31.78	0.0715	99	75	125	32.94	4.1	20	
Uranium	69.2	1.0	63.56	1.093	107	75	125	71.25	2.9	20	
Vanadium	85.5	1.0	63.56	58.34	43	75	125	90.7	5.9	20	S

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A**

Run ID :Run Order: **ICPMS204-B_150414B: 35** SampType: **Method Blank** Lab ID: **MB-28623** Method: **SW6020**

Analysis Date: **04/14/15 11:52** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.4									
Arsenic	ND	0.2									
Cadmium	ND	0.8									
Chromium	ND	0.2									
Lead	ND	0.5									
Molybdenum	ND	0.5									
Selenium	2	0.8									
Silver	ND	0.3									
Uranium	ND	0.3									
Vanadium	5	2									

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A**

Run ID :Run Order: **ICPMS204-B_150414B: 36** SampType: **Laboratory Control Sample** Lab ID: **LCS-28623** Method: **SW6020**

Analysis Date: **04/14/15 11:55** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	47.4	1.0	126	0	38	2.2	92.9				
Arsenic	326	1.0	343	0	95	72.3	106.4				
Cadmium	135	1.0	137	0	98	73	105.1				
Chromium	78.1	1.0	76	0	103	72.8	109.1				
Lead	200	1.0	187	0	107	75.9	108.6				
Molybdenum	160	1.0	172	0	93	68.6	105.8				
Selenium	206	1.0	196	1.671	104	72.5	112.2				
Silver	67.8	1.0	69	0	98	67.8	112.8				
Uranium	118	1.0	100	0	118	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28623

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150414B: 36** SampType: **Laboratory Control Sample** Lab ID: **LCS-28623** Method: **SW6020**

Analysis Date: **04/14/15 11:55** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vanadium	73.6	2.1	73	5.215	94	66.6	107.3				

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28624

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 41** SampType: **Method Blank** Lab ID: **MB-28624** Method: **SW6010B**
Analysis Date: **04/13/15 13:46** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.7	0.3									
Barium	0.03	0.02									
Beryllium	ND	0.009									
Boron	0.3	0.1									
Cobalt	ND	0.1									
Copper	ND	0.2									
Iron	10	0.6									
Manganese	0.08	0.02									
Nickel	ND	0.07									
Zinc	7	0.09									

Associated samples: **H15030394-018A, H15030394-021A, H15030394-024A**

Run ID :Run Order: **ICP2-HE_150413B: 42** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28624** Method: **SW6010B**
Analysis Date: **04/13/15 13:50** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	250	5.0	250	0.6685	**100**	80	120				
Barium	49.1	1.0	50	0.031	**98**	80	120				
Beryllium	24.8	1.0	25	0	**99**	80	120				
Boron	47.2	1.0	50	0.2615	**94**	80	120				
Cobalt	46.4	1.0	50	0	**93**	80	120				
Copper	47.8	1.0	50	0	**96**	80	120				
Iron	245	5.0	250	14.83	**92**	80	120				
Manganese	235	1.0	250	0.0835	**94**	80	120				
Nickel	45.3	1.0	50	0	**91**	80	120				
Zinc	52.0	1.0	50	7.379	**89**	80	120				

Associated samples: **H15030394-018A, H15030394-021A, H15030394-024A**

Run ID :Run Order: **ICP2-HE_150413B: 45** SampType: **Laboratory Control Sample** Lab ID: **LCS-28624** Method: **SW6010B**
Analysis Date: **04/13/15 14:01** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	13300	5.0	14700	0.6685	**90**	50.7	131.3				
Barium	555	1.0	614	0.031	**90**	80.6	112.2				
Beryllium	45.3	1.0	51	0	**89**	76.3	108.6				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28624

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 45** SampType: **Laboratory Control Sample** Lab ID: **LCS-28624** Method: **SW6010B**

Analysis Date: **04/13/15 14:01** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	71.5	1.0	93.2	0.2615	76	59.4	101.9				
Cobalt	44.5	1.0	57.4	0	77	73.3	103.7				
Copper	245	1.1	280	0	88	77.5	109.6				
Iron	18800	5.0	23000	14.83	82	39.6	138.3				
Manganese	348	1.0	369	0.0835	94	80.8	115.7				
Nickel	48.4	1.0	61	0	79	72.3	103.4				
Zinc	186	1.0	213	7.379	84	74.2	109.9				

Associated samples: **H15030394-018A, H15030394-021A, H15030394-024A**

Run ID :Run Order: **ICP2-HE_150413B: 50** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030393-013APDS** Method: **SW6010B**

Analysis Date: **04/13/15 14:19** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	12600	5.0	1775	10620		75	125				A
Barium	517	1.0	355	181.1	95	75	125				
Beryllium	166	1.0	177.5	0.4488	93	75	125				
Boron	329	1.0	355	3.992	92	75	125				
Cobalt	318	1.0	355	2.724	89	75	125				
Copper	353	1.6	355	24	93	75	125				
Iron	16300	5.0	1775	14490		75	125				A
Manganese	1790	1.0	1775	206.5	89	75	125				
Nickel	318	1.0	355	9.005	87	75	125				
Zinc	374	1.0	355	43.07	93	75	125				

Associated samples: **H15030394-018A, H15030394-021A, H15030394-024A**

Run ID :Run Order: **ICP2-HE_150413B: 51** SampType: **Sample Matrix Spike** Lab ID: **H15030393-013AMS** Method: **SW6010B**

Analysis Date: **04/13/15 14:23** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	12200	5.0	348.1	10620		75	125				A
Barium	254	1.0	69.62	181.1	104	75	125				
Beryllium	35.3	1.0	34.81	0.4488	100	75	125				
Boron	67.4	1.0	69.62	3.992	91	75	125				
Cobalt	67.4	1.0	69.62	2.724	93	75	125				
Copper	88.2	1.5	69.62	24	92	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28624

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 51** SampType: **Sample Matrix Spike** Lab ID: **H15030393-013AMS** Method: **SW6010B**

Analysis Date: **04/13/15 14:23** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	14600	5.0	348.1	14490		75	125				A
Manganese	537	1.0	348.1	206.5	95	75	125				
Nickel	71.9	1.0	69.62	9.005	90	75	125				
Zinc	105	1.0	69.62	43.07	89	75	125				

Associated samples: **H15030394-018A, H15030394-021A, H15030394-024A**

Run ID :Run Order: **ICP2-HE_150413B: 52** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-013AMSD** Method: **SW6010B**

Analysis Date: **04/13/15 14:27** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	12500	5.0	344.7	10620		75	125	12240	2.4	20	A
Barium	246	1.0	68.94	181.1	95	75	125	253.7	2.9	20	
Beryllium	34.9	1.0	34.47	0.4488	100	75	125	35.29	1.0	20	
Boron	67.9	1.0	68.94	3.992	93	75	125	67.37	0.8	20	
Cobalt	67.9	1.0	68.94	2.724	95	75	125	67.35	0.9	20	
Copper	91.1	1.5	68.94	24	97	75	125	88.2	3.3	20	
Iron	14700	5.0	344.7	14490		75	125	14570	1.0	20	A
Manganese	534	1.0	344.7	206.5	95	75	125	537.1	0.6	20	
Nickel	73.2	1.0	68.94	9.005	93	75	125	71.93	1.8	20	
Zinc	110	1.0	68.94	43.07	97	75	125	105.2	4.6	20	

Associated samples: **H15030394-018A, H15030394-021A, H15030394-024A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28624

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 69** SampType: **Method Blank** Lab ID: **MB-28624** Method: **SW6020**
Analysis Date: **04/13/15 21:40** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.2	0.05									
Cadmium	ND	0.2									
Chromium	0.07	0.04									
Lead	ND	0.10									
Molybdenum	ND	0.09									
Selenium	ND	0.2									
Silver	ND	0.05									
Uranium	ND	0.06									
Vanadium	3										

Associated samples: **H15030394-018A, H15030394-021A, H15030394-024A**

Run ID :Run Order: **ICPMS204-B_150413C: 70** SampType: **Laboratory Control Sample** Lab ID: **LCS-28624** Method: **SW6020**
Analysis Date: **04/13/15 21:43** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	48.9	1.0	126	0	**39**	2.2	92.9				
Arsenic	322	1.0	343	0.1961	**94**	72.3	106.4				
Cadmium	124	1.0	137	0	**91**	73	105.1				
Chromium	79.0	1.0	76	0.06895	**104**	72.8	109.1				
Lead	202	1.0	187	0	**108**	75.9	108.6				
Molybdenum	165	1.0	172	0	**96**	68.6	105.8				
Selenium	195	1.0	196	0	**100**	72.5	112.2				
Silver	68.1	1.0	69	0	**99**	67.8	112.8				
Vanadium	72.6	1.0	73	3.157	**95**	66.6	107.3				

Associated samples: **H15030394-018A, H15030394-021A, H15030394-024A**

Run ID :Run Order: **ICPMS204-B_150413C: 71** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28624** Method: **SW6020**
Analysis Date: **04/13/15 21:45** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	54.2	1.0	50	0	**108**	80	120				
Arsenic	52.6	1.0	50	0.1961	**105**	80	120				
Cadmium	26.6	1.0	25	0	**106**	80	120				
Chromium	52.0	1.0	50	0.06895	**104**	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28624

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 71** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28624** Method: **SW6020**

Analysis Date: **04/13/15 21:45** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	52.4	1.0	50	0	105	80	120				
Molybdenum	52.3	1.0	50	0	105	80	120				
Selenium	52.3	1.0	50	0	105	80	120				
Silver	25.1	1.0	25	0	100	80	120				
Uranium	53.8	1.0	50	0	108	80	120				
Vanadium	54.0	1.0	50	3.157	102	80	120				

Associated samples: **H15030394-018A, H15030394-021A, H15030394-024A**

Run ID :Run Order: **ICPMS204-B_150413C: 79** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030393-013APDS** Method: **SW6020**

Analysis Date: **04/13/15 22:06** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	719	1.0	689.4	0.1888	104	75	125				
Arsenic	731	1.0	689.4	30.5	102	75	125				
Cadmium	329	1.0	344.7	0.2502	95	75	125				
Chromium	709	1.0	689.4	17.23	100	75	125				
Lead	694	1.0	689.4	12.52	99	75	125				
Molybdenum	712	1.0	689.4	0.3804	103	75	125				
Selenium	686	1.0	689.4	0.7266	99	75	125				
Silver	130	1.0	344.7	0.1404	38	75	125				S
Uranium	716	1.0	689.4	1.233	104	75	125				
Vanadium	731	1.0	689.4	39.77	100	75	125				

Associated samples: **H15030394-018A, H15030394-021A, H15030394-024A**

Run ID :Run Order: **ICPMS204-B_150413C: 80** SampType: **Sample Matrix Spike** Lab ID: **H15030393-013AMS** Method: **SW6020**

Analysis Date: **04/13/15 22:08** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	40.8	1.0	69.62	0.1888	58	75	125				S
Arsenic	95.2	1.0	69.62	30.5	93	75	125				
Cadmium	34.8	1.0	34.81	0.2502	99	75	125				
Chromium	89.7	1.0	69.62	17.23	104	75	125				
Lead	82.6	1.0	69.62	12.52	101	75	125				
Molybdenum	73.5	1.0	69.62	0.3804	105	75	125				
Selenium	72.9	1.0	69.62	0.7266	104	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28624

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 80** SampType: **Sample Matrix Spike** Lab ID: **H15030393-013AMS** Method: **SW6020**

Analysis Date: **04/13/15 22:08** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	34.8	1.0	34.81	0.1404	100	75	125				
Uranium	76.0	1.0	69.62	1.233	107	75	125				
Vanadium	111	1.0	69.62	39.77	103	75	125				

Associated samples: **H15030394-018A, H15030394-021A, H15030394-024A**

Run ID :Run Order: **ICPMS204-B_150413C: 81** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-013AMSD** Method: **SW6020**

Analysis Date: **04/13/15 22:10** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	39.2	1.0	68.94	0.1888	57	75	125	40.79	3.9	20	S
Arsenic	98.9	1.0	68.94	30.5	99	75	125	95.17	3.8	20	
Cadmium	35.7	1.0	34.47	0.2502	103	75	125	34.81	2.4	20	
Chromium	92.6	1.0	68.94	17.23	109	75	125	89.74	3.2	20	
Lead	86.8	1.0	68.94	12.52	108	75	125	82.57	5.0	20	
Molybdenum	74.9	1.0	68.94	0.3804	108	75	125	73.52	1.8	20	
Selenium	74.4	1.0	68.94	0.7266	107	75	125	72.89	2.0	20	
Silver	35.7	1.0	34.47	0.1404	103	75	125	34.81	2.6	20	
Uranium	77.8	1.0	68.94	1.233	111	75	125	75.95	2.3	20	
Vanadium	116	1.0	68.94	39.77	110	75	125	111.5	3.7	20	

Associated samples: **H15030394-018A, H15030394-021A, H15030394-024A**

Run ID :Run Order: **ICPMS204-B_150414B: 46** SampType: **Method Blank** Lab ID: **MB-28624** Method: **SW6020**

Analysis Date: **04/14/15 12:20** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.4									
Arsenic	ND	0.2									
Cadmium	ND	0.8									
Chromium	ND	0.2									
Lead	ND	0.5									
Molybdenum	ND	0.5									
Selenium	0.8	0.8									
Silver	ND	0.3									
Uranium	ND	0.3									
Vanadium	5	2									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28624

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150414B: 46** SampType: **Method Blank** Lab ID: **MB-28624** Method: **SW6020**

Analysis Date: **04/14/15 12:20** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15030394-018A, H15030394-021A, H15030394-024A**

Run ID :Run Order: **ICPMS204-B_150414B: 47** SampType: **Laboratory Control Sample** Lab ID: **LCS-28624** Method: **SW6020**

Analysis Date: **04/14/15 12:23** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Uranium	120	1.0	100	0	120	80	120				

Associated samples: **H15030394-018A, H15030394-021A, H15030394-024A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28625

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 58** SampType: **Method Blank** Lab ID: **MB-28625** Method: **SW6010B**
Analysis Date: **04/13/15 14:49** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.7									
Barium	0.04	0.02									
Beryllium	ND	0.009									
Boron	0.3	0.1									
Cobalt	ND	0.1									
Copper	ND	0.2									
Iron	8	0.6									
Manganese	0.05	0.02									
Nickel	0.08	0.07									
Zinc	3	0.09									

Associated samples: **H15030394-017A, H15030394-020A, H15030394-023A**

Run ID :Run Order: **ICP2-HE_150413B: 59** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28625** Method: **SW6010B**
Analysis Date: **04/13/15 14:53** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	248	5.0	250	0	99	80	120				
Barium	49.5	1.0	50	0.0415	99	80	120				
Beryllium	24.9	1.0	25	0	100	80	120				
Boron	46.7	1.0	50	0.266	93	80	120				
Cobalt	45.5	1.0	50	0	91	80	120				
Copper	48.0	1.0	50	0	96	80	120				
Iron	238	5.0	250	8.139	92	80	120				
Manganese	234	1.0	250	0.0455	93	80	120				
Nickel	44.5	1.0	50	0.08	89	80	120				
Zinc	51.8	1.0	50	2.821	98	80	120				

Associated samples: **H15030394-017A, H15030394-020A, H15030394-023A**

Run ID :Run Order: **ICP2-HE_150413B: 60** SampType: **Laboratory Control Sample** Lab ID: **LCS-28625** Method: **SW6010B**
Analysis Date: **04/13/15 14:56** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	11600	5.0	15310	0	76	50.7	131.3				
Barium	540	1.0	639.6	0.0415	84	80.6	112.2				
Beryllium	44.1	1.0	53.13	0	83	76.3	108.6				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28625

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 60** SampType: **Laboratory Control Sample** Lab ID: **LCS-28625** Method: **SW6010B**

Analysis Date: **04/13/15 14:56** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	69.9	1.0	97.08	0.266	72	59.4	101.9				
Cobalt	46.5	1.0	59.79	0	78	73.3	103.7				
Copper	240	1.1	291.7	0	82	77.5	109.6				
Iron	18000	5.0	23960	8.139	75	39.6	138.3				
Manganese	354	1.0	384.4	0.0455	92	80.8	115.7				
Nickel	48.1	1.0	63.54	0.08	76	72.3	103.4				
Zinc	186	1.0	221.9	2.821	82	74.2	109.9				

Associated samples: **H15030394-017A, H15030394-020A, H15030394-023A**

Run ID :Run Order: **ICP2-HE_150413B: 65** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030393-012APDS** Method: **SW6010B**

Analysis Date: **04/13/15 15:15** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	29900	9.1	3415	26340		75	125				A
Barium	909	1.0	683	281.6	92	75	125				
Beryllium	314	1.0	341.5	1.507	91	75	125				
Boron	604	1.4	683	11.61	87	75	125				
Cobalt	582	1.5	683	3.529	85	75	125				
Copper	706	3.0	683	84.48	91	75	125				
Iron	25700	8.0	3415	22730		75	125				A
Manganese	3640	1.0	3415	704	86	75	125				
Nickel	594	1.0	683	36.01	82	75	125				
Zinc	724	1.3	683	112.2	90	75	125				

Associated samples: **H15030394-017A, H15030394-020A, H15030394-023A**

Run ID :Run Order: **ICP2-HE_150413B: 66** SampType: **Sample Matrix Spike** Lab ID: **H15030393-012AMS** Method: **SW6010B**

Analysis Date: **04/13/15 15:19** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	32300	8.8	663.1	26340		75	125				A
Barium	437	1.0	132.6	281.6	117	75	125				
Beryllium	66.3	1.0	66.31	1.507	98	75	125				
Boron	133	1.4	132.6	11.61	91	75	125				
Cobalt	124	1.5	132.6	3.529	91	75	125				
Copper	217	2.9	132.6	84.48	100	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28625

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 66** SampType: **Sample Matrix Spike** Lab ID: **H15030393-012AMS** Method: **SW6010B**

Analysis Date: **04/13/15 15:19** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	24000	7.8	663.1	22730		75	125				A
Manganese	1350	1.0	663.1	704	97	75	125				
Nickel	148	1.0	132.6	36.01	84	75	125				
Zinc	238	1.2	132.6	112.2	95	75	125				

Associated samples: **H15030394-017A, H15030394-020A, H15030394-023A**

Run ID :Run Order: **ICP2-HE_150413B: 69** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-012AMSD** Method: **SW6010B**

Analysis Date: **04/13/15 15:30** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	32800	8.7	656.2	26340		75	125	32330	1.6	20	A
Barium	443	1.0	131.2	281.6	123	75	125	436.7	1.3	20	
Beryllium	65.3	1.0	65.62	1.507	97	75	125	66.31	1.6	20	
Boron	130	1.4	131.2	11.61	90	75	125	132.9	2.4	20	
Cobalt	120	1.5	131.2	3.529	89	75	125	123.9	3.4	20	
Copper	210	2.9	131.2	84.48	95	75	125	217.3	3.5	20	
Iron	24000	7.7	656.2	22730		75	125	23980	0.2	20	A
Manganese	1320	1.0	656.2	704	93	75	125	1346	2.3	20	
Nickel	146	1.0	131.2	36.01	84	75	125	148.1	1.2	20	
Zinc	239	1.2	131.2	112.2	97	75	125	238.4	0.3	20	

Associated samples: **H15030394-017A, H15030394-020A, H15030394-023A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28625

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150414B: 57** SampType: **Method Blank** Lab ID: **MB-28625** Method: **SW6020**

Analysis Date: **04/14/15 12:48** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.4									
Arsenic	0.2	0.2									
Cadmium	ND	0.8									
Chromium	ND	0.2									
Lead	ND	0.5									
Molybdenum	ND	0.5									
Selenium	1	0.8									
Silver	ND	0.3									
Uranium	ND	0.3									
Vanadium	4	2									

Associated samples: **H15030394-017A, H15030394-020A, H15030394-023A**

Run ID :Run Order: **ICPMS204-B_150414B: 58** SampType: **Laboratory Control Sample** Lab ID: **LCS-28625** Method: **SW6020**

Analysis Date: **04/14/15 12:51** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	46.6	1.0	126	0	**37**	2.2	92.9				
Arsenic	314	1.0	343	0.2478	**91**	72.3	106.4				
Cadmium	131	1.0	137	0	**96**	73	105.1				
Chromium	74.7	1.0	76	0	**98**	72.8	109.1				
Lead	190	1.0	187	0	**101**	75.9	108.6				
Molybdenum	153	1.0	172	0	**89**	68.6	105.8				
Selenium	199	1.0	196	1.315	**101**	72.5	112.2				
Silver	65.8	1.0	69	0	**95**	67.8	112.8				
Uranium	112	1.0	100	0	**112**	80	120				
Vanadium	71.1	2.2	73	4.415	**91**	66.6	107.3				

Associated samples: **H15030394-017A, H15030394-020A, H15030394-023A**

Run ID :Run Order: **ICPMS204-B_150414B: 59** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28625** Method: **SW6020**

Analysis Date: **04/14/15 12:53** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	51.0	1.0	50	0	**102**	80	120				
Arsenic	51.3	1.0	50	0.2478	**102**	80	120				
Cadmium	25.7	1.0	25	0	**103**	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28625

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150414B: 59** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28625** Method: **SW6020**

Analysis Date: **04/14/15 12:53** Units: **mg/kg** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	50.2	1.0	50	0	100	80	120				
Lead	50.2	1.0	50	0	100	80	120				
Molybdenum	50.2	1.0	50	0	100	80	120				
Selenium	54.5	1.0	50	1.315	106	80	120				
Silver	24.8	1.0	25	0	99	80	120				
Uranium	49.0	1.0	50	0	98	80	120				
Vanadium	53.6	2.1	50	4.415	98	80	120				

Associated samples: **H15030394-017A, H15030394-020A, H15030394-023A**

Run ID :Run Order: **ICPMS204-B_150414B: 65** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030393-012APDS** Method: **SW6020**

Analysis Date: **04/14/15 13:09** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	6790	1.0	6631	0	102	75	125				
Arsenic	6860	1.0	6631	55.11	103	75	125				
Cadmium	3270	2.0	3316	0	99	75	125				
Chromium	6670	1.0	6631	71.82	100	75	125				
Lead	6630	1.3	6631	134.1	98	75	125				
Molybdenum	6680	1.2	6631	3.524	101	75	125				
Selenium	6700	2.1	6631	5.582	101	75	125				
Silver	2900	1.0	3316	0	88	75	125				
Uranium	6690	1.0	6631	4.706	101	75	125				
Vanadium	6710	5.6	6631	70.89	100	75	125				

Associated samples: **H15030394-017A, H15030394-020A, H15030394-023A**

Run ID :Run Order: **ICPMS204-B_150414B: 66** SampType: **Sample Matrix Spike** Lab ID: **H15030393-012AMS** Method: **SW6020**

Analysis Date: **04/14/15 13:11** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	67.4	1.0	132.6	0	51	75	125				S
Arsenic	190	1.0	132.6	55.11	101	75	125				
Cadmium	73.5	2.0	66.31	0	111	75	125				
Chromium	202	1.0	132.6	71.82	98	75	125				
Lead	250	1.3	132.6	134.1	87	75	125				
Molybdenum	144	1.2	132.6	3.524	106	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28625

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150414B: 66** SampType: **Sample Matrix Spike** Lab ID: **H15030393-012AMS** Method: **SW6020**

Analysis Date: **04/14/15 13:11** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	151	2.1	132.6	5.582	110	75	125				
Silver	88.3	1.0	66.31	0	133	75	125				S
Uranium	143	1.0	132.6	4.706	104	75	125				
Vanadium	204	5.6	132.6	70.89	100	75	125				

Associated samples: **H15030394-017A, H15030394-020A, H15030394-023A**

Run ID :Run Order: **ICPMS204-B_150414B: 67** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-012AMSD** Method: **SW6020**

Analysis Date: **04/14/15 13:14** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/9/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	50.3	1.0	131.2	0	38	75	125	67.44	29	20	SR
Arsenic	182	1.0	131.2	55.11	97	75	125	189.7	4.2	20	
Cadmium	68.5	2.0	65.62	0	104	75	125	73.47	7.0	20	
Chromium	197	1.0	131.2	71.82	96	75	125	201.9	2.2	20	
Lead	246	1.3	131.2	134.1	86	75	125	249.7	1.3	20	
Molybdenum	130	1.2	131.2	3.524	97	75	125	144.1	10	20	
Selenium	141	2.0	131.2	5.582	103	75	125	150.9	6.9	20	
Silver	73.2	1.0	65.62	0	112	75	125	88.26	19	20	
Uranium	130	1.0	131.2	4.706	95	75	125	143	9.9	20	
Vanadium	201	5.5	131.2	70.89	99	75	125	203.8	1.5	20	

Associated samples: **H15030394-017A, H15030394-020A, H15030394-023A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28653

Date: *27-Apr-15*

Run ID :Run Order: **HGCV201-H_150415A: 4** SampType: **Method Blank** Lab ID: **MB-28653** Method: **SW7471B**
Analysis Date: **04/15/15 10:10** Units: **mg/kg** **Prep Info:** Prep Date: **4/14/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.002									

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A**

Run ID :Run Order: **HGCV201-H_150415A: 5** SampType: **Laboratory Control Sample** Lab ID: **LCS-28653** Method: **SW7471B**
Analysis Date: **04/15/15 10:13** Units: **mg/kg** **Prep Info:** Prep Date: **4/14/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.8	0.50	4.97	0	96	80	120				

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A**

Run ID :Run Order: **HGCV201-H_150415A: 6** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28653** Method: **SW7471B**
Analysis Date: **04/15/15 10:15** Units: **mg/kg** **Prep Info:** Prep Date: **4/14/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.0	0.50	1	0	104	80	120				

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A**

Run ID :Run Order: **HGCV201-H_150415A: 8** SampType: **Sample Matrix Spike** Lab ID: **H15040148-001AMS** Method: **SW7471B**
Analysis Date: **04/15/15 10:20** Units: **mg/kg** **Prep Info:** Prep Date: **4/14/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.1	0.50	0.9766	0.008037	108	80	120				

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A**

Run ID :Run Order: **HGCV201-H_150415A: 9** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15040148-001AMSD** Method: **SW7471B**
Analysis Date: **04/15/15 10:22** Units: **mg/kg** **Prep Info:** Prep Date: **4/14/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.1	0.50	0.9728	0.008037	112	80	120	1.063	3.5	20	

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28653

Date: *27-Apr-15*

Run ID :Run Order: **HGCV201-H_150415A: 23** SampType: **Sample Matrix Spike** Lab ID: **H15030394-026AMS** Method: **SW7471B**

Analysis Date: **04/15/15 10:56** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/14/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	3.6	0.50	2.312	0.8707	118	80	120				

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A**

Run ID :Run Order: **HGCV201-H_150415A: 24** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-026AMSD** Method: **SW7471B**

Analysis Date: **04/15/15 10:58** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/14/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	3.3	0.50	2.314	0.8707	104	80	120	3.599	9.2	20	

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28680

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150420B: 56** SampType: **Method Blank** Lab ID: **MB-28680** Method: **SW6010B**

Analysis Date: **04/20/15 14:36** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.7									
Barium	1	0.02									
Beryllium	ND	0.009									
Boron	ND	0.1									
Copper	ND	0.2									
Iron	7	0.6									
Manganese	ND	0.02									
Nickel	0.1	0.07									
Vanadium	0.2	0.1									
Zinc	0.2	0.09									

Associated samples: **H15030394-026A, H15030394-029A, H15030394-032A, H15030394-035A, H15030394-038A, H15030394-041A, H15030394-044A, H15030394-050A, H15030394-053A, H15030394-056A, H15030394-059A, H15030394-062A**

Run ID :Run Order: **ICP2-HE_150420B: 59** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28680** Method: **SW6010B**

Analysis Date: **04/20/15 14:48** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	266	5.0	260.4	0	**102**	80	120				
Barium	52.6	1.0	52.08	1	**99**	80	120				
Beryllium	26.3	1.0	26.04	0	**101**	80	120				
Boron	50.1	1.0	52.08	0	**96**	80	120				
Copper	51.9	1.0	52.08	0	**100**	80	120				
Iron	262	5.0	260.4	6.655	**98**	80	120				
Manganese	253	1.0	260.4	0	**97**	80	120				
Nickel	51.2	1.0	52.08	0.1376	**98**	80	120				
Vanadium	51.7	1.0	52.08	0.1807	**99**	80	120				
Zinc	51.3	1.0	52.08	0.1797	**98**	80	120				

Associated samples: **H15030394-026A, H15030394-029A, H15030394-032A, H15030394-035A, H15030394-038A, H15030394-041A, H15030394-044A, H15030394-050A, H15030394-053A, H15030394-056A, H15030394-059A, H15030394-062A**

Run ID :Run Order: **ICP2-HE_150420B: 60** SampType: **Laboratory Control Sample** Lab ID: **LCS-28680** Method: **SW6010B**

Analysis Date: **04/20/15 14:51** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	13100	5.0	15470	0	**85**	50.7	131.3				
Barium	568	1.0	646.3	1	**88**	80.6	112.2				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28680

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150420B: 60** SampType: **Laboratory Control Sample** Lab ID: **LCS-28680** Method: **SW6010B**

Analysis Date: **04/20/15 14:51** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	45.8	1.0	53.68	0	85	76.3	108.6				
Boron	71.3	1.0	98.11	0	73	59.4	101.9				
Copper	252	1.2	294.7	0	86	77.5	109.6				
Iron	19500	5.0	24210	6.655	81	39.6	138.3				
Manganese	370	1.0	388.4	0	95	80.8	115.7				
Nickel	52.6	1.0	64.21	0.1376	82	72.3	103.4				
Vanadium	64.3	1.0	76.84	0.1807	83	66.6	107.3				
Zinc	185	1.0	224.2	0.1797	83	74.2	109.9				

Associated samples: **H15030394-026A, H15030394-029A, H15030394-032A, H15030394-035A, H15030394-038A, H15030394-041A, H15030394-044A, H15030394-050A, H15030394-053A, H15030394-056A, H15030394-059A, H15030394-062A**

Run ID :Run Order: **ICP2-HE_150420B: 78** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15040098-002APDS** Method: **SW6010B**

Analysis Date: **04/20/15 15:57** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	16900	7.7	2887	13920		75	125				A
Barium	740	1.0	577.4	188.1	96	75	125				
Beryllium	274	1.0	288.7	0.7445	95	75	125				
Boron	516	1.2	577.4	10.78	87	75	125				
Copper	902	2.5	577.4	354.1	95	75	125				
Iron	17000	6.8	2887	14420		75	125				A
Manganese	3140	1.0	2887	548.1	90	75	125				
Nickel	512	1.0	577.4	11.24	87	75	125				
Vanadium	558	1.7	577.4	25.17	92	75	125				
Zinc	759	1.1	577.4	251.1	88	75	125				

Associated samples: **H15030394-026A, H15030394-029A, H15030394-032A, H15030394-035A, H15030394-038A, H15030394-041A, H15030394-044A, H15030394-050A, H15030394-053A, H15030394-056A, H15030394-059A, H15030394-062A**

Run ID :Run Order: **ICP2-HE_150420B: 79** SampType: **Sample Matrix Spike** Lab ID: **H15040098-002AMS** Method: **SW6010B**

Analysis Date: **04/20/15 16:01** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	18900	7.3	549.4	13920		75	125				A
Barium	308	1.0	109.9	188.1	109	75	125				
Beryllium	55.2	1.0	54.94	0.7445	99	75	125				
Boron	114	1.1	109.9	10.78	94	75	125				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28680

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150420B: 79** SampType: **Sample Matrix Spike** Lab ID: **H15040098-002AMS** Method: **SW6010B**

Analysis Date: **04/20/15 16:01** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	457	2.4	109.9	354.1	94	75	125				
Iron	15600	6.5	549.4	14420		75	125				A
Manganese	1070	1.0	549.4	548.1	95	75	125				
Nickel	115	1.0	109.9	11.24	94	75	125				
Vanadium	133	1.6	109.9	25.17	98	75	125				
Zinc	350	1.0	109.9	251.1	90	75	125				

Associated samples: **H15030394-026A, H15030394-029A, H15030394-032A, H15030394-035A, H15030394-038A, H15030394-041A, H15030394-044A, H15030394-050A, H15030394-053A, H15030394-056A, H15030394-059A, H15030394-062A**

Run ID :Run Order: **ICP2-HE_150420B: 80** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15040098-002AMSD** Method: **SW6010B**

Analysis Date: **04/20/15 16:05** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	18800	7.2	543.9	13920		75	125	18880	0.5	20	A
Barium	307	1.0	108.8	188.1	109	75	125	308.2	0.5	20	
Beryllium	53.9	1.0	54.39	0.7445	98	75	125	55.21	2.3	20	
Boron	113	1.1	108.8	10.78	94	75	125	114.1	0.7	20	
Copper	478	2.4	108.8	354.1	114	75	125	457	4.5	20	
Iron	15700	6.4	543.9	14420		75	125	15580	0.7	20	A
Manganese	1060	1.0	543.9	548.1	95	75	125	1068	0.4	20	
Nickel	111	1.0	108.8	11.24	91	75	125	114.6	3.5	20	
Vanadium	134	1.6	108.8	25.17	100	75	125	132.7	0.7	20	
Zinc	354	1.0	108.8	251.1	95	75	125	350.3	1.1	20	

Associated samples: **H15030394-026A, H15030394-029A, H15030394-032A, H15030394-035A, H15030394-038A, H15030394-041A, H15030394-044A, H15030394-050A, H15030394-053A, H15030394-056A, H15030394-059A, H15030394-062A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28680

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150420B: 54** SampType: **Method Blank** Lab ID: **MB-28680** Method: **SW6020**

Analysis Date: **04/21/15 00:41** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.4									
Arsenic	ND	0.2									
Cadmium	ND	0.8									
Chromium	ND	0.2									
Cobalt	ND	0.2									
Lead	ND	0.5									
Molybdenum	ND	0.5									
Selenium	ND	0.8									
Silver	0.3	0.3									
Uranium	ND	0.3									

Associated samples: **H15030394-026A, H15030394-029A, H15030394-032A, H15030394-035A, H15030394-038A, H15030394-041A, H15030394-044A, H15030394-050A, H15030394-053A, H15030394-056A, H15030394-059A, H15030394-062A**

Run ID :Run Order: **ICPMS204-B_150420B: 55** SampType: **Laboratory Control Sample** Lab ID: **LCS-28680** Method: **SW6020**

Analysis Date: **04/21/15 00:44** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	53.8	1.0	132.6	0	**41**	2.2	92.9				
Arsenic	331	1.0	361.1	0	**92**	72.3	106.4				
Cadmium	140	1.0	144.2	0	**97**	73	105.1				
Chromium	79.4	1.0	80	0	**99**	72.8	109.1				
Cobalt	61.2	1.0	60.42	0	**101**	73.3	103.7				
Lead	202	1.0	196.8	0	**103**	75.9	108.6				
Molybdenum	167	1.0	181.1	0	**92**	68.6	105.8				
Selenium	200	1.0	206.3	0	**97**	72.5	112.2				
Silver	69.9	1.0	72.63	0.2968	**96**	67.8	112.8				
Uranium	121	1.0	105.3	0	**115**	80	120				

Associated samples: **H15030394-026A, H15030394-029A, H15030394-032A, H15030394-035A, H15030394-038A, H15030394-041A, H15030394-044A, H15030394-050A, H15030394-053A, H15030394-056A, H15030394-059A, H15030394-062A**

Run ID :Run Order: **ICPMS204-B_150420B: 56** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28680** Method: **SW6020**

Analysis Date: **04/21/15 00:47** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	54.3	1.0	52.08	0	**104**	80	120				
Arsenic	55.1	1.0	52.08	0	**106**	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28680

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150420B: 56** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28680** Method: **SW6020**

Analysis Date: **04/21/15 00:47** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	27.7	1.0	26.04	0	106	80	120				
Chromium	54.1	1.0	52.08	0	104	80	120				
Cobalt	54.4	1.0	52.08	0	104	80	120				
Lead	52.8	1.0	52.08	0	101	80	120				
Molybdenum	53.9	1.0	52.08	0	103	80	120				
Selenium	53.8	1.0	52.08	0	103	80	120				
Silver	27.0	1.0	26.04	0.2968	103	80	120				
Uranium	52.2	1.0	52.08	0	100	80	120				

Associated samples: **H15030394-026A, H15030394-029A, H15030394-032A, H15030394-035A, H15030394-038A, H15030394-041A, H15030394-044A, H15030394-050A, H15030394-053A, H15030394-056A, H15030394-059A, H15030394-062A**

Run ID :Run Order: **ICPMS204-B_150420B: 77** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15040098-002APDS** Method: **SW6020**

Analysis Date: **04/21/15 01:54** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	5510	1.0	5606	0	98	75	125				
Arsenic	5670	1.0	5606	61.55	100	75	125				
Cadmium	2700	1.7	2803	2.646	96	75	125				
Chromium	5480	1.0	5606	21.28	97	75	125				
Cobalt	5370	1.0	5606	4.823	96	75	125				
Lead	5400	1.1	5606	59.09	95	75	125				
Molybdenum	5520	1.0	5606	1.291	99	75	125				
Selenium	5320	1.7	5606	2.366	95	75	125				
Silver	2140	1.0	2803	1.22	76	75	125				
Uranium	5550	1.0	5606	2.687	99	75	125				

Associated samples: **H15030394-026A, H15030394-029A, H15030394-032A, H15030394-035A, H15030394-038A, H15030394-041A, H15030394-044A, H15030394-050A, H15030394-053A, H15030394-056A, H15030394-059A, H15030394-062A**

Run ID :Run Order: **ICPMS204-B_150420B: 82** SampType: **Sample Matrix Spike** Lab ID: **H15040098-002AMS** Method: **SW6020**

Analysis Date: **04/21/15 02:10** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	63.7	1.0	109.9	0	58	75	125				S
Arsenic	178	1.0	109.9	61.55	106	75	125				
Cadmium	60.3	1.7	54.94	2.646	105	75	125				
Chromium	141	1.0	109.9	21.28	109	75	125				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28680

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150420B: 82** SampType: **Sample Matrix Spike** Lab ID: **H15040098-002AMS** Method: **SW6020**

Analysis Date: **04/21/15 02:10** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt	119	1.0	109.9	4.823	104	75	125				
Lead	172	1.0	109.9	59.09	103	75	125				
Molybdenum	114	1.0	109.9	1.291	103	75	125				
Selenium	115	1.7	109.9	2.366	103	75	125				
Silver	56.1	1.0	54.94	1.22	100	75	125				
Uranium	113	1.0	109.9	2.687	101	75	125				

Associated samples: **H15030394-026A, H15030394-029A, H15030394-032A, H15030394-035A, H15030394-038A, H15030394-041A, H15030394-044A, H15030394-050A, H15030394-053A, H15030394-056A, H15030394-059A, H15030394-062A**

Run ID :Run Order: **ICPMS204-B_150420B: 83** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15040098-002AMSD** Method: **SW6020**

Analysis Date: **04/21/15 02:13** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	58.7	1.0	108.8	0	54	75	125	63.67	8.1	20	S
Arsenic	178	1.0	108.8	61.55	107	75	125	178.4	0.1	20	
Cadmium	59.2	1.7	54.39	2.646	104	75	125	60.32	1.8	20	
Chromium	137	1.0	108.8	21.28	106	75	125	140.9	3.0	20	
Cobalt	117	1.0	108.8	4.823	103	75	125	118.9	1.6	20	
Lead	171	1.0	108.8	59.09	103	75	125	172.2	0.6	20	
Molybdenum	110	1.0	108.8	1.291	100	75	125	114.4	3.9	20	
Selenium	112	1.7	108.8	2.366	100	75	125	115.5	3.4	20	
Silver	55.9	1.0	54.39	1.22	100	75	125	56.09	0.4	20	
Uranium	110	1.0	108.8	2.687	98	75	125	113.4	3.3	20	

Associated samples: **H15030394-026A, H15030394-029A, H15030394-032A, H15030394-035A, H15030394-038A, H15030394-041A, H15030394-044A, H15030394-050A, H15030394-053A, H15030394-056A, H15030394-059A, H15030394-062A**

Run ID :Run Order: **ICPMS204-B_150422A: 62** SampType: **Method Blank** Lab ID: **MB-28680** Method: **SW6020**

Analysis Date: **04/22/15 13:57** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.07									
Arsenic	0.2	0.05									
Cadmium	ND	0.2									
Chromium	0.08	0.04									
Cobalt	ND	0.03									
Lead	ND	0.09									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28680

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150422A: 62** SampType: **Method Blank** Lab ID: **MB-28680** Method: **SW6020**

Analysis Date: **04/22/15 13:57** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	ND	0.09									
Selenium	ND	0.2									
Silver	0.1	0.05									
Uranium	ND	0.06									

Associated samples: **H15030394-026A, H15030394-029A, H15030394-032A, H15030394-035A, H15030394-038A, H15030394-041A, H15030394-044A, H15030394-050A, H15030394-053A, H15030394-056A, H15030394-059A, H15030394-062A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28681

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150420B: 19** SampType: **Method Blank** Lab ID: **MB-28681** Method: **SW6010B**

Analysis Date: **04/20/15 12:19** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.3	0.3									
Barium	ND	0.02									
Beryllium	ND	0.008									
Boron	0.2	0.10									
Copper	ND	0.2									
Iron	3	0.6									
Manganese	0.04	0.02									
Nickel	ND	0.07									
Silver	ND	0.2									
Vanadium	ND	0.1									
Zinc	0.3	0.09									

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A, H15030394-028A, H15030394-031A, H15030394-034A, H15030394-037A, H15030394-040A, H15030394-043A, H15030394-046A, H15030394-049A, H15030394-052A, H15030394-055A, H15030394-058A, H15030394-061A, H15030394-064A**

Run ID :Run Order: **ICP2-HE_150420B: 20** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28681** Method: **SW6010B**

Analysis Date: **04/20/15 12:23** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	253	5.0	247.5	0.3363	102	80	120				
Barium	48.5	1.0	49.5	0	98	80	120				
Beryllium	24.8	1.0	24.75	0	100	80	120				
Boron	46.8	1.0	49.5	0.1656	94	80	120				
Copper	48.6	1.0	49.5	0	98	80	120				
Iron	243	5.0	247.5	2.589	97	80	120				
Manganese	240	1.0	247.5	0.03962	97	80	120				
Nickel	46.8	1.0	49.5	0	95	80	120				
Silver	24.1	1.0	24.75	0	97	80	120				
Vanadium	48.7	1.0	49.5	0	98	80	120				
Zinc	47.3	1.0	49.5	0.2627	95	80	120				

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A, H15030394-028A, H15030394-031A, H15030394-034A, H15030394-037A, H15030394-040A, H15030394-043A, H15030394-046A, H15030394-049A, H15030394-052A, H15030394-055A, H15030394-058A, H15030394-061A, H15030394-064A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28681

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150420B: 21** SampType: **Laboratory Control Sample** Lab ID: **LCS-28681** Method: **SW6010B**

Analysis Date: **04/20/15 12:26** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	13600	5.0	14000	0.3363	97	50.7	131.3				
Barium	524	1.0	584.8	0	90	80.6	112.2				
Beryllium	43.5	1.0	48.57	0	89	76.3	108.6				
Boron	73.5	1.0	88.76	0.1656	83	59.4	101.9				
Copper	236	1.0	266.7	0	88	77.5	109.6				
Iron	18700	5.0	21900	2.589	85	39.6	138.3				
Manganese	341	1.0	351.4	0.03962	97	80.8	115.7				
Nickel	51.9	1.0	58.1	0	89	72.3	103.4				
Silver	60.5	1.0	65.71	0	92	67.8	112.8				
Vanadium	61.4	1.0	69.52	0	88	66.6	107.3				
Zinc	184	1.0	202.9	0.2627	91	74.2	109.9				

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A, H15030394-028A, H15030394-031A, H15030394-034A, H15030394-037A, H15030394-040A, H15030394-043A, H15030394-046A, H15030394-049A, H15030394-052A, H15030394-055A, H15030394-058A, H15030394-061A, H15030394-064A**

Run ID :Run Order: **ICP2-HE_150420B: 53** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030394-064APDS** Method: **SW6010B**

Analysis Date: **04/20/15 14:25** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5170	5.0	1458	3795	94	75	125				
Barium	363	1.0	291.5	91.57	93	75	125				
Beryllium	136	1.0	145.8	0.2383	93	75	125				
Boron	263	1.0	291.5	0.8909	90	75	125				
Copper	745	1.3	291.5	479.4	91	75	125				
Iron	8570	5.0	1458	7382		75	125				A
Manganese	1770	1.0	1458	465.8	90	75	125				
Nickel	270	1.0	291.5	5.136	91	75	125				
Silver	132	1.2	145.8	0	91	75	125				
Vanadium	282	1.0	291.5	14.92	91	75	125				
Zinc	732	1.0	291.5	458.1	94	75	125				

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A, H15030394-028A, H15030394-031A, H15030394-034A, H15030394-037A, H15030394-040A, H15030394-043A, H15030394-046A, H15030394-049A, H15030394-052A, H15030394-055A, H15030394-058A, H15030394-061A, H15030394-064A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28681

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150420B: 54** SampType: **Sample Matrix Spike** Lab ID: **H15030394-064AMS** Method: **SW6010B**

Analysis Date: **04/20/15 14:29** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4620	5.0	283	3795		75	125				A
Barium	123	1.0	56.6	91.57	55	75	125				S
Beryllium	28.6	1.0	28.3	0.2383	100	75	125				
Boron	53.9	1.0	56.6	0.8909	94	75	125				
Copper	410	1.2	56.6	479.4		75	125				A
Iron	8370	5.0	283	7382		75	125				A
Manganese	702	1.0	283	465.8	83	75	125				
Nickel	59.2	1.0	56.6	5.136	95	75	125				
Silver	27.0	1.2	28.3	0	95	75	125				
Vanadium	73.6	1.0	56.6	14.92	104	75	125				
Zinc	308	1.0	56.6	458.1		75	125				A

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A, H15030394-028A, H15030394-031A, H15030394-034A, H15030394-037A, H15030394-040A, H15030394-043A, H15030394-046A, H15030394-049A, H15030394-052A, H15030394-055A, H15030394-058A, H15030394-061A, H15030394-064A**

Run ID :Run Order: **ICP2-HE_150420B: 55** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-064AMSD** Method: **SW6010B**

Analysis Date: **04/20/15 14:33** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5100	5.0	285.7	3795		75	125	4617	9.9	20	A
Barium	162	1.0	57.14	91.57	122	75	125	122.9	27	20	R
Beryllium	29.7	1.0	28.57	0.2383	103	75	125	28.6	3.7	20	
Boron	54.0	1.0	57.14	0.8909	93	75	125	53.89	0.3	20	
Copper	696	1.3	57.14	479.4		75	125	409.8	52	20	AR
Iron	8470	5.0	285.7	7382		75	125	8374	1.2	20	A
Manganese	893	1.0	285.7	465.8	150	75	125	702.1	24	20	SR
Nickel	60.3	1.0	57.14	5.136	97	75	125	59.16	2.0	20	
Silver	27.4	1.2	28.57	0	96	75	125	27.03	1.2	20	
Vanadium	77.0	1.0	57.14	14.92	109	75	125	73.64	4.5	20	
Zinc	498	1.0	57.14	458.1		75	125	308.4	47	20	AR

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A, H15030394-028A, H15030394-031A, H15030394-034A, H15030394-037A, H15030394-040A, H15030394-043A, H15030394-046A, H15030394-049A, H15030394-052A, H15030394-055A, H15030394-058A, H15030394-061A, H15030394-064A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28681

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150420B: 15** SampType: **Method Blank** Lab ID: **MB-28681** Method: **SW6020**

Analysis Date: **04/20/15 22:36** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.4									
Arsenic	ND	0.2									
Cadmium	ND	0.7									
Chromium	ND	0.2									
Cobalt	ND	0.2									
Lead	ND	0.4									
Molybdenum	ND	0.4									
Selenium	ND	0.7									
Silver	0.3	0.3									
Uranium	ND	0.3									

Associated samples: **H15030394-028A, H15030394-031A, H15030394-034A, H15030394-037A, H15030394-040A, H15030394-043A, H15030394-046A, H15030394-049A, H15030394-052A, H15030394-055A, H15030394-058A, H15030394-061A, H15030394-064A**

Run ID :Run Order: **ICPMS204-B_150420B: 16** SampType: **Laboratory Control Sample** Lab ID: **LCS-28681** Method: **SW6020**

Analysis Date: **04/20/15 22:40** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	48.1	1.0	120	0	**40**	2.2	92.9				
Arsenic	312	1.0	326.7	0	**95**	72.3	106.4				
Cadmium	134	1.0	130.5	0	**103**	73	105.1				
Chromium	77.4	1.0	72.38	0	**107**	72.8	109.1				
Cobalt	55.9	1.0	54.67	0	**102**	73.3	103.7				
Lead	189	1.0	178.1	0	**106**	75.9	108.6				
Molybdenum	160	1.0	163.8	0	**98**	68.6	105.8				
Selenium	191	1.0	186.7	0	**102**	72.5	112.2				
Silver	65.3	1.0	65.71	0.2653	**99**	67.8	112.8				
Uranium	114	1.0	95.24	0	**120**	80	120				

Associated samples: **H15030394-028A, H15030394-031A, H15030394-034A, H15030394-037A, H15030394-040A, H15030394-043A, H15030394-046A, H15030394-049A, H15030394-052A, H15030394-055A, H15030394-058A, H15030394-061A, H15030394-064A**

Run ID :Run Order: **ICPMS204-B_150420B: 17** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28681** Method: **SW6020**

Analysis Date: **04/20/15 22:43** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	52.5	1.0	49.5	0	**106**	80	120				
Arsenic	51.6	1.0	49.5	0	**104**	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28681

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150420B: 17** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28681** Method: **SW6020**

Analysis Date: **04/20/15 22:43** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	26.4	1.0	24.75	0	107	80	120				
Chromium	50.7	1.0	49.5	0	102	80	120				
Cobalt	51.2	1.0	49.5	0	103	80	120				
Lead	51.0	1.0	49.5	0	103	80	120				
Molybdenum	51.9	1.0	49.5	0	105	80	120				
Selenium	51.5	1.0	49.5	0	104	80	120				
Silver	25.8	1.0	24.75	0.2653	103	80	120				
Uranium	49.4	1.0	49.5	0	100	80	120				

Associated samples: **H15030394-028A, H15030394-031A, H15030394-034A, H15030394-037A, H15030394-040A, H15030394-043A, H15030394-046A, H15030394-049A, H15030394-052A, H15030394-055A, H15030394-058A, H15030394-061A, H15030394-064A**

Run ID :Run Order: **ICPMS204-B_150420B: 47** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030394-064APDS** Method: **SW6020**

Analysis Date: **04/21/15 00:19** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	2770	1.0	2830	0	98	75	125				
Arsenic	2810	1.0	2830	25.09	98	75	125				
Cadmium	1380	1.0	1415	1.328	97	75	125				
Chromium	2750	1.0	2830	7.39	97	75	125				
Cobalt	2680	1.0	2830	3.665	95	75	125				
Lead	2740	1.0	2830	54.57	95	75	125				
Molybdenum	2790	1.0	2830	1.04	98	75	125				
Selenium	2660	1.0	2830	0	94	75	125				
Silver	1190	1.0	1415	1.253	84	75	125				
Uranium	2770	1.0	2830	2.829	98	75	125				

Associated samples: **H15030394-028A, H15030394-031A, H15030394-034A, H15030394-037A, H15030394-040A, H15030394-043A, H15030394-046A, H15030394-049A, H15030394-052A, H15030394-055A, H15030394-058A, H15030394-061A, H15030394-064A**

Run ID :Run Order: **ICPMS204-B_150420B: 48** SampType: **Sample Matrix Spike** Lab ID: **H15030394-064AMS** Method: **SW6020**

Analysis Date: **04/21/15 00:21** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	53.9	1.0	56.6	0	95	75	125				
Arsenic	83.0	1.0	56.6	25.09	102	75	125				
Cadmium	31.5	1.0	28.3	1.328	107	75	125				
Chromium	68.3	1.0	56.6	7.39	108	75	125				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28681

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150420B: 48** SampType: **Sample Matrix Spike** Lab ID: **H15030394-064AMS** Method: **SW6020**

Analysis Date: **04/21/15 00:21** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt	63.3	1.0	56.6	3.665	105	75	125				
Lead	86.9	1.0	56.6	54.57	57	75	125				S
Molybdenum	62.9	1.0	56.6	1.04	109	75	125				
Selenium	60.2	1.0	56.6	0	106	75	125				
Silver	35.2	1.0	28.3	1.253	120	75	125				
Uranium	63.5	1.0	56.6	2.829	107	75	125				

Associated samples: **H15030394-028A, H15030394-031A, H15030394-034A, H15030394-037A, H15030394-040A, H15030394-043A, H15030394-046A, H15030394-049A, H15030394-052A, H15030394-055A, H15030394-058A, H15030394-061A, H15030394-064A**

Run ID :Run Order: **ICPMS204-B_150420B: 49** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-064AMSD** Method: **SW6020**

Analysis Date: **04/21/15 00:25** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	44.8	1.0	57.14	0	78	75	125	53.92	18	20	
Arsenic	85.4	1.0	57.14	25.09	106	75	125	83.01	2.8	20	
Cadmium	31.2	1.0	28.57	1.328	105	75	125	31.47	0.8	20	
Chromium	68.1	1.0	57.14	7.39	106	75	125	68.32	0.3	20	
Cobalt	62.7	1.0	57.14	3.665	103	75	125	63.31	1.0	20	
Lead	86.1	1.0	57.14	54.57	55	75	125	86.92	0.9	20	S
Molybdenum	59.0	1.0	57.14	1.04	101	75	125	62.92	6.5	20	
Selenium	58.1	1.0	57.14	0	102	75	125	60.23	3.7	20	
Silver	31.7	1.0	28.57	1.253	106	75	125	35.21	11	20	
Uranium	60.6	1.0	57.14	2.829	101	75	125	63.51	4.7	20	

Associated samples: **H15030394-028A, H15030394-031A, H15030394-034A, H15030394-037A, H15030394-040A, H15030394-043A, H15030394-046A, H15030394-049A, H15030394-052A, H15030394-055A, H15030394-058A, H15030394-061A, H15030394-064A**

Run ID :Run Order: **ICPMS204-B_150422A: 20** SampType: **Method Blank** Lab ID: **MB-28681** Method: **SW6020**

Analysis Date: **04/22/15 11:47** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.07									
Arsenic	0.2	0.05									
Cadmium	ND	0.2									
Chromium	0.08	0.04									
Cobalt	ND	0.03									
Lead	ND	0.09									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28681

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150422A: 20** SampType: **Method Blank** Lab ID: **MB-28681** Method: **SW6020**

Analysis Date: **04/22/15 11:47** Units: **mg/kg** **Prep Info:** Prep Date: **4/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	ND	0.09									
Selenium	ND	0.1									
Silver	0.1	0.05									
Uranium	ND	0.05									

Associated samples: **H15030394-028A, H15030394-031A, H15030394-034A, H15030394-037A, H15030394-040A, H15030394-043A, H15030394-046A, H15030394-049A, H15030394-052A, H15030394-055A, H15030394-058A, H15030394-061A, H15030394-064A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28693

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150421B: 58** SampType: **Method Blank** Lab ID: **MB-28693** Method: **SW6010B**

Analysis Date: **04/21/15 17:58** Units: **mg/kg** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.8	0.3									
Beryllium	ND	0.009									
Boron	ND	0.1									
Copper	ND	0.2									
Iron	8	0.6									
Manganese	ND	0.02									
Nickel	ND	0.07									
Vanadium	ND	0.1									
Zinc	3	0.09									

Associated samples: **H15030394-027A, H15030394-030A, H15030394-033A, H15030394-036A, H15030394-039A, H15030394-042A, H15030394-045A, H15030394-047A, H15030394-048A, H15030394-051A, H15030394-054A, H15030394-057A, H15030394-060A, H15030394-063A**

Run ID :Run Order: **ICP2-HE_150421B: 59** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28693** Method: **SW6010B**

Analysis Date: **04/21/15 18:01** Units: **mg/kg** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	243	5.0	238.1	0.798	102	80	120				
Beryllium	24.2	1.0	23.81	0	102	80	120				
Boron	46.8	1.0	47.62	0	98	80	120				
Copper	47.8	1.0	47.62	0	100	80	120				
Iron	239	5.0	238.1	7.514	97	80	120				
Manganese	233	1.0	238.1	0	98	80	120				
Nickel	46.9	1.0	47.62	0	98	80	120				
Vanadium	47.3	1.0	47.62	0	99	80	120				
Zinc	48.0	1.0	47.62	2.715	95	80	120				

Associated samples: **H15030394-027A, H15030394-030A, H15030394-033A, H15030394-036A, H15030394-039A, H15030394-042A, H15030394-045A, H15030394-047A, H15030394-048A, H15030394-051A, H15030394-054A, H15030394-057A, H15030394-060A, H15030394-063A**

Run ID :Run Order: **ICP2-HE_150421B: 60** SampType: **Laboratory Control Sample** Lab ID: **LCS-28693** Method: **SW6010B**

Analysis Date: **04/21/15 18:05** Units: **mg/kg** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	12300	5.0	15640	0.798	79	50.7	131.3				
Beryllium	41.5	1.0	54.26	0	76	76.3	108.6				
Boron	69.4	1.0	99.15	0	70	59.4	101.9				
Copper	230	1.2	297.9	0	77	77.5	109.6				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28693

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150421B: 60** SampType: **Laboratory Control Sample** Lab ID: **LCS-28693** Method: **SW6010B**

Analysis Date: **04/21/15 18:05** Units: **mg/kg** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	17900	5.0	24470	7.514	73	39.6	138.3				
Manganese	343	1.0	392.6	0	87	80.8	115.7				
Nickel	49.6	1.0	64.89	0	76	72.3	103.4				
Vanadium	58.7	1.0	77.66	0	76	66.6	107.3				
Zinc	178	1.0	226.6	2.715	77	74.2	109.9				

Associated samples: **H15030394-027A, H15030394-030A, H15030394-033A, H15030394-036A, H15030394-039A, H15030394-042A, H15030394-045A, H15030394-047A, H15030394-048A, H15030394-051A, H15030394-054A, H15030394-057A, H15030394-060A, H15030394-063A**

Run ID :Run Order: **ICP2-HE_150421B: 78** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030394-063APDS** Method: **SW6010B**

Analysis Date: **04/21/15 19:12** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/20/2015** Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	6670	5.0	1660	4958	103	75	125				
Beryllium	159	1.0	166	0.3256	96	75	125				
Boron	315	1.0	332	0	95	75	125				
Copper	1510	1.5	332	1184	98	75	125				
Iron	20700	5.0	1660	19160		75	125				A
Manganese	2030	1.0	1660	482.1	93	75	125				
Nickel	317	1.0	332	6.076	94	75	125				
Vanadium	369	1.0	332	54.91	95	75	125				
Zinc	1100	1.0	332	778.4	96	75	125				

Associated samples: **H15030394-027A, H15030394-030A, H15030394-033A, H15030394-036A, H15030394-039A, H15030394-042A, H15030394-045A, H15030394-047A, H15030394-048A, H15030394-051A, H15030394-054A, H15030394-057A, H15030394-060A, H15030394-063A**

Run ID :Run Order: **ICP2-HE_150421B: 79** SampType: **Sample Matrix Spike** Lab ID: **H15030394-063AMS** Method: **SW6010B**

Analysis Date: **04/21/15 19:15** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	6610	5.0	322.4	4958		75	125				A
Beryllium	33.2	1.0	32.24	0.3256	102	75	125				
Boron	62.5	1.0	64.47	0	97	75	125				
Copper	1110	1.4	64.47	1184		75	125				A
Iron	18300	5.0	322.4	19160		75	125				A
Manganese	799	1.0	322.4	482.1	98	75	125				
Nickel	69.4	1.0	64.47	6.076	98	75	125				
Vanadium	115	1.0	64.47	54.91	93	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28693

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150421B: 79** SampType: **Sample Matrix Spike** Lab ID: **H15030394-063AMS** Method: **SW6010B**

Analysis Date: **04/21/15 19:15** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	823	1.0	64.47	778.4		75	125				A

Associated samples: **H15030394-027A, H15030394-030A, H15030394-033A, H15030394-036A, H15030394-039A, H15030394-042A, H15030394-045A, H15030394-047A, H15030394-048A, H15030394-051A, H15030394-054A, H15030394-057A, H15030394-060A, H15030394-063A**

Run ID :Run Order: **ICP2-HE_150421B: 82** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-063AMSD** Method: **SW6010B**

Analysis Date: **04/21/15 19:27** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	6600	5.0	322.4	4958		75	125	6613	**0.2**	20	A
Beryllium	32.9	1.0	32.24	0.3256	**101**	75	125	33.23	**0.9**	20	
Boron	62.6	1.0	64.47	0	**97**	75	125	62.53	**0.1**	20	
Copper	1340	1.4	64.47	1184		75	125	1110	**19**	20	A
Iron	14600	5.0	322.4	19160		75	125	18320	**22**	20	AR
Manganese	828	1.0	322.4	482.1	**107**	75	125	799.1	**3.5**	20	
Nickel	69.1	1.0	64.47	6.076	**98**	75	125	69.42	**0.4**	20	
Vanadium	102	1.0	64.47	54.91	**73**	75	125	115.1	**12**	20	S
Zinc	925	1.0	64.47	778.4		75	125	823.1	**12**	20	A

Associated samples: **H15030394-027A, H15030394-030A, H15030394-033A, H15030394-036A, H15030394-039A, H15030394-042A, H15030394-045A, H15030394-047A, H15030394-048A, H15030394-051A, H15030394-054A, H15030394-057A, H15030394-060A, H15030394-063A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28693

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150422A: 34** SampType: **Method Blank** Lab ID: **MB-28693** Method: **SW6020**

Analysis Date: **04/22/15 12:31** Units: **mg/kg** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.07									
Arsenic	0.2	0.05									
Barium	ND	0.4									
Cadmium	ND	0.2									
Chromium	0.09	0.04									
Cobalt	ND	0.03									
Lead	ND	0.09									
Molybdenum	ND	0.09									
Selenium	ND	0.2									
Silver	0.08	0.05									
Uranium	ND	0.06									

Associated samples: **H15030394-027A, H15030394-030A, H15030394-033A, H15030394-036A, H15030394-039A, H15030394-042A, H15030394-045A, H15030394-047A, H15030394-048A, H15030394-051A, H15030394-054A, H15030394-057A, H15030394-060A, H15030394-063A**

Run ID :Run Order: **ICPMS204-B_150422A: 35** SampType: **Laboratory Control Sample** Lab ID: **LCS-28693** Method: **SW6020**

Analysis Date: **04/22/15 12:34** Units: **mg/kg** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	48.1	1.0	134	0	**36**	2.2	92.9				
Arsenic	309	1.0	364.9	0.1794	**85**	72.3	106.4				
Barium	608	1.0	653.2	0	**93**	80.6	112.2				
Cadmium	119	1.0	145.7	0	**82**	73	105.1				
Chromium	76.5	1.0	80.85	0.09407	**95**	72.8	109.1				
Cobalt	57.0	1.0	61.06	0	**93**	73.3	103.7				
Lead	190	1.0	198.9	0	**95**	75.9	108.6				
Molybdenum	157	1.0	183	0	**86**	68.6	105.8				
Selenium	194	1.0	208.5	0	**93**	72.5	112.2				
Silver	66.8	1.0	73.4	0.0751	**91**	67.8	112.8				
Uranium	117	1.0	106.4	0	**110**	80	120				

Associated samples: **H15030394-027A, H15030394-030A, H15030394-033A, H15030394-036A, H15030394-039A, H15030394-042A, H15030394-045A, H15030394-047A, H15030394-048A, H15030394-051A, H15030394-054A, H15030394-057A, H15030394-060A, H15030394-063A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28693

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150422A: 36** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28693** Method: **SW6020**

Analysis Date: **04/22/15 12:37** Units: **mg/kg** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	52.8	1.0	47.62	0	111	80	120				
Arsenic	52.6	1.0	47.62	0.1794	110	80	120				
Barium	52.0	1.0	47.62	0	109	80	120				
Cadmium	26.4	1.0	23.81	0	111	80	120				
Chromium	52.5	1.0	47.62	0.09407	110	80	120				
Cobalt	52.2	1.0	47.62	0	110	80	120				
Lead	52.6	1.0	47.62	0	110	80	120				
Molybdenum	52.1	1.0	47.62	0	109	80	120				
Selenium	51.9	1.0	47.62	0	109	80	120				
Silver	26.3	1.0	23.81	0.0751	110	80	120				
Uranium	53.3	1.0	47.62	0	112	80	120				

Associated samples: **H15030394-027A, H15030394-030A, H15030394-033A, H15030394-036A, H15030394-039A, H15030394-042A, H15030394-045A, H15030394-047A, H15030394-048A, H15030394-051A, H15030394-054A, H15030394-057A, H15030394-060A, H15030394-063A**

Run ID :Run Order: **ICPMS204-B_150422A: 56** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030394-063APDS** Method: **SW6020**

Analysis Date: **04/22/15 13:39** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/20/2015** Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	660	1.0	644.7	0.4059	102	75	125				
Arsenic	706	1.0	644.7	39.59	103	75	125				
Barium	752	1.0	644.7	97.68	101	75	125				
Cadmium	330	1.0	322.4	2.93	101	75	125				
Chromium	668	1.0	644.7	15.11	101	75	125				
Cobalt	643	1.0	644.7	5.954	99	75	125				
Lead	714	1.0	644.7	64.99	101	75	125				
Molybdenum	663	1.0	644.7	2.85	102	75	125				
Selenium	642	1.0	644.7	0.5499	99	75	125				
Silver	294	1.0	322.4	0.6531	91	75	125				
Uranium	689	1.0	644.7	9.336	105	75	125				

Associated samples: **H15030394-027A, H15030394-030A, H15030394-033A, H15030394-036A, H15030394-039A, H15030394-042A, H15030394-045A, H15030394-047A, H15030394-048A, H15030394-051A, H15030394-054A, H15030394-057A, H15030394-060A, H15030394-063A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28693

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150422A: 57** SampType: **Sample Matrix Spike** Lab ID: **H15030394-063AMS** Method: **SW6020**

Analysis Date: **04/22/15 13:42** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	47.4	1.0	64.47	0.4059	73	75	125				S
Arsenic	103	1.0	64.47	39.59	99	75	125				
Barium	158	1.0	64.47	97.68	94	75	125				
Cadmium	37.0	1.0	32.24	2.93	106	75	125				
Chromium	82.4	1.0	64.47	15.11	104	75	125				
Cobalt	73.0	1.0	64.47	5.954	104	75	125				
Lead	123	1.0	64.47	64.99	90	75	125				
Molybdenum	68.9	1.0	64.47	2.85	102	75	125				
Selenium	66.8	1.0	64.47	0.5499	103	75	125				
Silver	36.9	1.0	32.24	0.6531	113	75	125				
Uranium	74.7	1.0	64.47	9.336	101	75	125				

Associated samples: **H15030394-027A, H15030394-030A, H15030394-033A, H15030394-036A, H15030394-039A, H15030394-042A, H15030394-045A, H15030394-047A, H15030394-048A, H15030394-051A, H15030394-054A, H15030394-057A, H15030394-060A, H15030394-063A**

Run ID :Run Order: **ICPMS204-B_150422A: 58** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-063AMSD** Method: **SW6020**

Analysis Date: **04/22/15 13:45** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	43.5	1.0	64.47	0.4059	67	75	125	47.35	8.5	20	S
Arsenic	105	1.0	64.47	39.59	101	75	125	103.4	1.2	20	
Barium	171	1.0	64.47	97.68	114	75	125	158.3	7.7	20	
Cadmium	37.3	1.0	32.24	2.93	107	75	125	37.05	0.6	20	
Chromium	79.7	1.0	64.47	15.11	100	75	125	82.4	3.3	20	
Cobalt	72.9	1.0	64.47	5.954	104	75	125	72.99	0.1	20	
Lead	126	1.0	64.47	64.99	95	75	125	123.1	2.3	20	
Molybdenum	67.8	1.0	64.47	2.85	101	75	125	68.86	1.6	20	
Selenium	68.1	1.0	64.47	0.5499	105	75	125	66.8	1.9	20	
Silver	34.7	1.0	32.24	0.6531	106	75	125	36.94	6.1	20	
Uranium	74.3	1.0	64.47	9.336	101	75	125	74.66	0.5	20	

Associated samples: **H15030394-027A, H15030394-030A, H15030394-033A, H15030394-036A, H15030394-039A, H15030394-042A, H15030394-045A, H15030394-047A, H15030394-048A, H15030394-051A, H15030394-054A, H15030394-057A, H15030394-060A, H15030394-063A**

Qualifiers:
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J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28695

Date: *27-Apr-15*

Run ID :Run Order: **HGCV201-H_150422B: 10** SampType: **Method Blank** Lab ID: **MB-28695** Method: **SW7471B**
Analysis Date: **04/22/15 13:58** Units: **mg/kg** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.001	1E-05									

Associated samples: **H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A**

Run ID :Run Order: **HGCV201-H_150422B: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-28695** Method: **SW7471B**
Analysis Date: **04/22/15 14:00** Units: **mg/kg** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.5	0.50	4.98	0.001379	**91**	80	120				

Associated samples: **H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A**

Run ID :Run Order: **HGCV201-H_150422B: 12** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28695** Method: **SW7471B**
Analysis Date: **04/22/15 14:03** Units: **mg/kg** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.0	0.50	1	0.001379	**104**	80	120				

Associated samples: **H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A**

Run ID :Run Order: **HGCV201-H_150422B: 15** SampType: **Sample Matrix Spike** Lab ID: **H15030394-035AMS** Method: **SW7471B**
Analysis Date: **04/22/15 14:10** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	3.4	0.50	2.537	0.8331	**100**	80	120				

Associated samples: **H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A**

Run ID :Run Order: **HGCV201-H_150422B: 16** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-035AMSD** Method: **SW7471B**
Analysis Date: **04/22/15 14:12** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	3.4	0.50	2.522	0.8331	**104**	80	120	3.381	**2.0**	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28695

Date: *27-Apr-15*

Run ID :Run Order: **HGCV201-H_150422B: 16** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-035AMSD** Method: **SW7471B**

Analysis Date: **04/22/15 14:12** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A**

Run ID :Run Order: **HGCV201-H_150422B: 31** SampType: **Sample Matrix Spike** Lab ID: **H15030394-046AMS** Method: **SW7471B**

Analysis Date: **04/22/15 14:48** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.3	0.50	1.264	0.01325	**100**	80	120				

Associated samples: **H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A**

Run ID :Run Order: **HGCV201-H_150422B: 32** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-046AMSD** Method: **SW7471B**

Analysis Date: **04/22/15 14:50** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/20/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.3	0.50	1.264	0.01325	**105**	80	120	1.271	**5.5**	20	

Associated samples: **H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28717

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150422C: 32** SampType: **Method Blank** Lab ID: **MB-28717** Method: **SW6010B**
Analysis Date: **04/22/15 15:43** Units: **mg/kg** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.1									
Copper	ND	0.2									

Associated samples: **H15030394-019A, H15030394-025A**

Run ID :Run Order: **ICP2-HE_150422C: 33** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28717** Method: **SW6010B**
Analysis Date: **04/22/15 15:46** Units: **mg/kg** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	51.3	1.0	51.55	0	100	80	120				
Copper	52.6	1.0	51.55	0	102	80	120				

Associated samples: **H15030394-019A, H15030394-025A**

Run ID :Run Order: **ICP2-HE_150422C: 34** SampType: **Laboratory Control Sample** Lab ID: **LCS-28717** Method: **SW6010B**
Analysis Date: **04/22/15 15:50** Units: **mg/kg** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	71.2	1.0	93.2	0	76	59.4	101.9				
Copper	245	1.1	280	0	87	77.5	109.6				

Associated samples: **H15030394-019A, H15030394-025A**

Run ID :Run Order: **ICP2-HE_150422C: 44** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15030394-025APDS** Method: **SW6010B**
Analysis Date: **04/22/15 16:27** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/21/2015** Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	313	1.0	332.9	3.789	93	75	125				
Copper	410	1.5	332.9	98.43	94	75	125				

Associated samples: **H15030394-019A, H15030394-025A**

Run ID :Run Order: **ICP2-HE_150422C: 45** SampType: **Sample Matrix Spike** Lab ID: **H15030394-025AMS** Method: **SW6010B**
Analysis Date: **04/22/15 16:31** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	69.2	1.0	64.63	3.789	101	75	125				
Copper	138	1.4	64.63	98.43	62	75	125				S

Associated samples: **H15030394-019A, H15030394-025A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28717

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150422C: 46** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-025AMSD** Method: **SW6010B**

Analysis Date: **04/22/15 16:35** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	67.8	1.0	64.63	3.789	**99**	75	125	69.15	**1.9**	20	
Copper	293	1.4	64.63	98.43	**301**	75	125	138.4	**72**	20	SR

Associated samples: **H15030394-019A, H15030394-025A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28719

Date: *27-Apr-15*

Run ID :Run Order: **HGCV201-H_150422A: 10** SampType: **Method Blank** Lab ID: **MB-28719** Method: **SW7471B**
Analysis Date: **04/22/15 10:20** Units: **mg/kg** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.003	1E-05									

Associated samples: **H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Run ID :Run Order: **HGCV201-H_150422A: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-28719** Method: **SW7471B**
Analysis Date: **04/22/15 10:22** Units: **mg/kg** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.8	0.50	4.98	0.00307	96	80	120				

Associated samples: **H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Run ID :Run Order: **HGCV201-H_150422A: 14** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-28719** Method: **SW7471B**
Analysis Date: **04/22/15 10:33** Units: **mg/kg** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.00	0.50	1	0.00307	99	80	120				

Associated samples: **H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Run ID :Run Order: **HGCV201-H_150422A: 22** SampType: **Sample Matrix Spike** Lab ID: **H15030394-062AMS** Method: **SW7471B**
Analysis Date: **04/22/15 11:03** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	3.5	0.89	1.785	1.847	95	80	120				

Associated samples: **H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Run ID :Run Order: **HGCV201-H_150422A: 23** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-062AMSD** Method: **SW7471B**
Analysis Date: **04/22/15 11:06** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	3.8	0.90	1.79	1.847	108	80	120	3.536	6.9	20	

Associated samples: **H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28719

Date: *27-Apr-15*

Run ID :Run Order: **HGCV201-H_150422A: 37** SampType: **Sample Matrix Spike** Lab ID: **H15030394-052AMS** Method: **SW7471B**

Analysis Date: **04/22/15 11:39** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.8	0.50	1.232	0.2643	121	80	120				S

Associated samples: **H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Run ID :Run Order: **HGCV201-H_150422A: 38** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-052AMSD** Method: **SW7471B**

Analysis Date: **04/22/15 11:41** Units: **mg/kg-dry** **Prep Info:** Prep Date: **4/21/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.6	0.50	1.23	0.2643	106	80	120	1.752	11	20	

Associated samples: **H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_R197799

Date: *27-Apr-15*

Run ID :Run Order: **SUB-C197799: 1** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV-44288** Method: **A5310 C**

Analysis Date: **04/02/15 01:04** Units: **mg/L** **Prep Info:** Prep Date: **4/1/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	9.79	0.50	10	0	98	90	110	0			

Associated samples: **H15030394-001E, H15030394-002E, H15030394-003E, H15030394-004E, H15030394-005E, H15030394-006E, H15030394-007E, H15030394-008E, H15030394-009E, H15030394-010E, H15030394-011E, H15030394-012E, H15030394-013E, H15030394-014E, H15030394-015E, H15030394-016E**

Run ID :Run Order: **SUB-C197799: 2** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-44288** Method: **A5310 C**

Analysis Date: **04/02/15 01:20** Units: **mg/L** **Prep Info:** Prep Date: **4/1/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	9.87	0.50	10	0	99	90	110	0			

Associated samples: **H15030394-001E, H15030394-002E, H15030394-003E, H15030394-004E, H15030394-005E, H15030394-006E, H15030394-007E, H15030394-008E, H15030394-009E, H15030394-010E, H15030394-011E, H15030394-012E, H15030394-013E, H15030394-014E, H15030394-015E, H15030394-016E**

Run ID :Run Order: **SUB-C197799: 8** SampType: **Sample Matrix Spike** Lab ID: **H15030394-005E** Method: **A5310 C**

Analysis Date: **04/02/15 05:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	9.05	0.50	5	4.133	98	85	115	0			

Associated samples: **H15030394-001E, H15030394-002E, H15030394-003E, H15030394-004E, H15030394-005E, H15030394-006E, H15030394-007E, H15030394-008E, H15030394-009E, H15030394-010E, H15030394-011E, H15030394-012E, H15030394-013E, H15030394-014E, H15030394-015E, H15030394-016E**

Run ID :Run Order: **SUB-C197799: 9** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-005E** Method: **A5310 C**

Analysis Date: **04/02/15 06:13** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	9.39	0.50	5	4.133	105	85	115	9.046	3.8	10	

Associated samples: **H15030394-001E, H15030394-002E, H15030394-003E, H15030394-004E, H15030394-005E, H15030394-006E, H15030394-007E, H15030394-008E, H15030394-009E, H15030394-010E, H15030394-011E, H15030394-012E, H15030394-013E, H15030394-014E, H15030394-015E, H15030394-016E**

Run ID :Run Order: **SUB-C197799: 14** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1-44288** Method: **A5310 C**

Analysis Date: **04/02/15 05:06** Units: **mg/L** **Prep Info:** Prep Date: **4/1/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	9.87	0.50	10	0	99	90	110	0			

Associated samples: **H15030394-001E, H15030394-002E, H15030394-003E, H15030394-004E, H15030394-005E, H15030394-006E, H15030394-007E, H15030394-008E, H15030394-009E, H15030394-010E, H15030394-011E, H15030394-012E, H15030394-013E, H15030394-014E, H15030394-015E, H15030394-016E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_R197799

Date: *27-Apr-15*

Run ID :Run Order: **SUB-C197799: 25** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-44288** Method: **A5310 C**

Analysis Date: **04/02/15 09:29** Units: **mg/L** **Prep Info:** Prep Date: **4/1/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.1	0.50	10	0	101	90	110	0			

Associated samples: **H15030394-001E, H15030394-002E, H15030394-003E, H15030394-004E, H15030394-005E, H15030394-006E, H15030394-007E, H15030394-008E, H15030394-009E, H15030394-010E, H15030394-011E, H15030394-012E, H15030394-013E, H15030394-014E, H15030394-015E, H15030394-016E**

Run ID :Run Order: **SUB-C197799: 27** SampType: **Sample Matrix Spike** Lab ID: **H15030394-015E** Method: **A5310 C**

Analysis Date: **04/02/15 10:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	9.56	0.50	5	4.583	100	85	115	0			

Associated samples: **H15030394-001E, H15030394-002E, H15030394-003E, H15030394-004E, H15030394-005E, H15030394-006E, H15030394-007E, H15030394-008E, H15030394-009E, H15030394-010E, H15030394-011E, H15030394-012E, H15030394-013E, H15030394-014E, H15030394-015E, H15030394-016E**

Run ID :Run Order: **SUB-C197799: 28** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-015E** Method: **A5310 C**

Analysis Date: **04/02/15 10:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	9.49	0.50	5	4.583	98	85	115	9.562	0.7	10	

Associated samples: **H15030394-001E, H15030394-002E, H15030394-003E, H15030394-004E, H15030394-005E, H15030394-006E, H15030394-007E, H15030394-008E, H15030394-009E, H15030394-010E, H15030394-011E, H15030394-012E, H15030394-013E, H15030394-014E, H15030394-015E, H15030394-016E**

Run ID :Run Order: **SUB-C197799: 30** SampType: **Method Blank** Lab ID: **MB-44288** Method: **A5310 C**

Analysis Date: **04/02/15 00:49** Units: **mg/L** **Prep Info:** Prep Date: **4/1/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	0.2	0.04									

Associated samples: **H15030394-001E, H15030394-002E, H15030394-003E, H15030394-004E, H15030394-005E, H15030394-006E, H15030394-007E, H15030394-008E, H15030394-009E, H15030394-010E, H15030394-011E, H15030394-012E, H15030394-013E, H15030394-014E, H15030394-015E, H15030394-016E**

Run ID :Run Order: **SUB-C197799: 31** SampType: **Laboratory Control Sample** Lab ID: **LCS-44288** Method: **A5310 C**

Analysis Date: **04/02/15 04:50** Units: **mg/L** **Prep Info:** Prep Date: **4/1/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	9.87	0.50	10	0.2234	96	90	110	0			

Associated samples: **H15030394-001E, H15030394-002E, H15030394-003E, H15030394-004E, H15030394-005E, H15030394-006E, H15030394-007E, H15030394-008E, H15030394-009E, H15030394-010E, H15030394-011E, H15030394-012E, H15030394-013E, H15030394-014E, H15030394-015E, H15030394-016E**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105150

Date: *27-Apr-15*

Run ID :Run Order: **FIA203-HE_150331C: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E353.2**

Analysis Date: **03/31/15 13:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.999	0.010	1	0	100	90	110				

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150331C: 10** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E353.2**

Analysis Date: **03/31/15 13:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.00	0.011	1	0	100	90	110				

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150331C: 12** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E353.2**

Analysis Date: **03/31/15 13:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	-0.0124	0.010		0		0	0				

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150331C: 14** SampType: **Method Blank** Lab ID: **MBLK** Method: **E353.2**

Analysis Date: **03/31/15 13:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	ND	0.003									

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150331C: 74** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**

Analysis Date: **03/31/15 15:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.525	0.010	0.5	0	105	90	110				

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105150

Date: *27-Apr-15*

Run ID :Run Order: **FIA203-HE_150331C: 76** SampType: **Sample Matrix Spike** Lab ID: **H15030393-002EMS** Method: **E353.2**

Analysis Date: **03/31/15 15:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.35	0.011	1	0.3889	**96**	90	110				

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150331C: 77** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-002EMSD** Method: **E353.2**

Analysis Date: **03/31/15 15:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.35	0.011	1	0.3889	**96**	90	110	1.351	**0.4**	20	

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150331C: 88** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**

Analysis Date: **03/31/15 15:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.518	0.010	0.5	0	**104**	90	110				

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150331C: 90** SampType: **Sample Matrix Spike** Lab ID: **H15030394-007DMS** Method: **E353.2**

Analysis Date: **03/31/15 15:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.89	0.011	1	0.9857	**90**	90	110				

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150331C: 91** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-007DMSD** Method: **E353.2**

Analysis Date: **03/31/15 15:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.89	0.011	1	0.9857	**91**	90	110	1.886	**0.3**	20	

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105152

Date: *27-Apr-15*

Run ID :Run Order: **PHSC_101-H_150401A: 6** SampType: **Method Blank** Lab ID: **MB** Method: **A2320 B**
Analysis Date: **04/01/15 09:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	3	0.7									

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **PHSC_101-H_150401A: 8** SampType: **Laboratory Control Sample** Lab ID: **LCS** Method: **A2320 B**
Analysis Date: **04/01/15 09:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	590	4.0	600	2.68	98	90	110				

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **PHSC_101-H_150401A: 11** SampType: **Sample Duplicate** Lab ID: **H15030393-001BDUP** Method: **A2320 B**
Analysis Date: **04/01/15 09:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	78	4.0		0				79.8	1.9	10	
Bicarbonate as HCO3	95	4.0		0				96.75	1.9	10	

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **PHSC_101-H_150401A: 15** SampType: **Sample Matrix Spike** Lab ID: **H15030393-002BMS** Method: **A2320 B**
Analysis Date: **04/01/15 09:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	660	4.0	600	75.45	97	80	120				

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **PHSC_101-H_150401A: 52** SampType: **Sample Duplicate** Lab ID: **H15030394-015ADUP** Method: **A2320 B**
Analysis Date: **04/01/15 11:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	92	4.0		0				91.55	0.2	10	
Bicarbonate as HCO3	110	4.0		0				111.1	0.2	10	

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105152

Date: *27-Apr-15*

Run ID :Run Order: **PHSC_101-H_150401A: 54** SampType: **Method Blank** Lab ID: **MB** Method: **A2320 B**

Analysis Date: **04/01/15 11:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	3	0.7									

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **PHSC_101-H_150401A: 56** SampType: **Laboratory Control Sample** Lab ID: **LCS** Method: **A2320 B**

Analysis Date: **04/01/15 11:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	590	4.0	600	2.88	**98**	90	110				

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **PHSC_101-H_150401A: 59** SampType: **Sample Matrix Spike** Lab ID: **H15030394-016AMS** Method: **A2320 B**

Analysis Date: **04/01/15 12:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	670	4.0	600	93.45	**97**	80	120				

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **PHSC_101-H_150401A: 60** SampType: **Sample Duplicate** Lab ID: **H15030394-016ADUP** Method: **A2320 B**

Analysis Date: **04/01/15 12:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	94	4.0		0				93.45	**0.7**	10	
Bicarbonate as HCO3	110	4.0		0				113.4	**0.8**	10	

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105153

Date: *27-Apr-15*

Run ID :Run Order: **IC102-H_150331A: 13** SampType: **Method Blank** Lab ID: **ICB** Method: **E300.0**

Analysis Date: **03/31/15 10:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	0.010									
Sulfate	ND	0.009									

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **IC102-H_150331A: 14** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E300.0**

Analysis Date: **03/31/15 10:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	106	1.0	100	0	106	90	110				
Sulfate	417	1.0	400	0	104	90	110				

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **IC102-H_150331A: 15** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E300.0**

Analysis Date: **03/31/15 10:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	49.5	1.0	50	0	99	90	110				
Sulfate	204	1.0	200	0	102	90	110				

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **IC102-H_150331A: 16** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV033115-1** Method: **E300.0**

Analysis Date: **03/31/15 10:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	104	1.0	100	0	104	90	110				
Sulfate	414	1.0	400	0	103	90	110				

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **IC102-H_150331A: 29** SampType: **Sample Matrix Spike** Lab ID: **H15030394-003AMS** Method: **E300.0**

Analysis Date: **03/31/15 13:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	80.0	1.0	50	26.31	107	90	110				
Sulfate	281	1.0	200	66.34	107	90	110				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105153

Date: *27-Apr-15*

Run ID :Run Order: **IC102-H_150331A: 29** SampType: **Sample Matrix Spike** Lab ID: **H15030394-003AMS** Method: **E300.0**

Analysis Date: **03/31/15 13:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **IC102-H_150331A: 30** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-003AMSD** Method: **E300.0**

Analysis Date: **03/31/15 13:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	79.9	1.0	50	26.31	107	90	110	79.97	0.1	20	
Sulfate	284	1.0	200	66.34	109	90	110	281.3	0.8	20	

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **IC102-H_150331A: 31** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV033115-2** Method: **E300.0**

Analysis Date: **03/31/15 13:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	105	1.0	100	0	105	90	110				
Sulfate	421	1.0	400	0	105	90	110				

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **IC102-H_150331A: 44** SampType: **Sample Matrix Spike** Lab ID: **H15030394-013AMS** Method: **E300.0**

Analysis Date: **03/31/15 16:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	79.4	1.0	50	24.98	109	90	110				
Sulfate	269	1.0	200	53.36	108	90	110				

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **IC102-H_150331A: 45** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-013AMSD** Method: **E300.0**

Analysis Date: **03/31/15 16:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	78.4	1.0	50	24.98	107	90	110	79.43	1.2	20	
Sulfate	270	1.0	200	53.36	108	90	110	269.2	0.3	20	

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105153

Date: *27-Apr-15*

Run ID :Run Order: **IC102-H_150331A: 46** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV033115-3** Method: **E300.0**

Analysis Date: **03/31/15 16:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	104	1.0	100	0	**104**	90	110				
Sulfate	417	1.0	400	0	**104**	90	110				

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **IC102-H_150331A: 50** SampType: **Sample Matrix Spike** Lab ID: **H15030394-014AMS** Method: **E300.0**

Analysis Date: **03/31/15 17:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	77.4	1.0	50	24.61	**106**	90	110				
Sulfate	267	1.0	200	53.33	**107**	90	110				

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **IC102-H_150331A: 51** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-014AMSD** Method: **E300.0**

Analysis Date: **03/31/15 17:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	78.7	1.0	50	24.61	**108**	90	110	77.38	**1.6**	20	
Sulfate	270	1.0	200	53.33	**108**	90	110	267.2	**0.9**	20	

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A, H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105154

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150331B: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **03/31/15 09:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.787	0.10	0.8	0	98	95	105				
Calcium	39.3	1.0	40	0	98	95	105				
Magnesium	39.7	1.0	40	0	99	95	105				
Potassium	39.6	1.0	40	0	99	95	105				
Sodium	39.8	1.0	40	0	99	95	105				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICP2-HE_150331B: 7** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-1** Method: **E200.7**

Analysis Date: **03/31/15 09:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.49	0.10	2.5	0	100	95	105				
Calcium	25.0	1.0	25	0	100	95	105				
Magnesium	24.6	1.0	25	0	98	95	105				
Potassium	25.2	1.0	25	0	101	95	105				
Sodium	25.3	1.0	25	0	101	95	105				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICP2-HE_150331B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **03/31/15 09:59** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.000570	0.10		0		0	0				
Calcium	478	1.0	500	0	96	80	120				
Magnesium	519	1.0	500	0	104	80	120				
Potassium	-0.170	1.0		0		0	0				
Sodium	0.0336	1.0		0		0	0				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICP2-HE_150331B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **03/31/15 10:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.00	0.10	1	0	100	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105154

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150331B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **03/31/15 10:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	479	1.0	500	0	96	80	120				
Magnesium	520	1.0	500	0	104	80	120				
Potassium	20.3	1.0	20	0	102	80	120				
Sodium	20.5	1.0	20	0	102	80	120				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICP2-HE_150331B: 13** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.7**

Analysis Date: **03/31/15 10:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.003									
Calcium	0.04	0.03									
Magnesium	ND	0.02									
Potassium	ND	0.07									
Sodium	ND	0.02									

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICP2-HE_150331B: 14** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.7**

Analysis Date: **03/31/15 10:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.981	0.10	1	0	98	85	115				
Calcium	49.9	1.0	50	0.03565	100	85	115				
Magnesium	50.4	1.0	50	0	101	85	115				
Potassium	50.2	1.0	50	0	100	85	115				
Sodium	50.4	1.0	50	0	101	85	115				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICP2-HE_150331B: 17** SampType: **Sample Matrix Spike** Lab ID: **H15030393-001CMS2** Method: **E200.7**

Analysis Date: **03/31/15 10:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.01	0.050	1	0.01147	100	70	130				
Calcium	77.3	1.0	50	26.98	101	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105154

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150331B: 17** SampType: **Sample Matrix Spike** Lab ID: **H15030393-001CMS2** Method: **E200.7**

Analysis Date: **03/31/15 10:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	57.9	1.0	50	6.41	103	70	130				
Potassium	53.0	1.0	50	2.358	101	70	130				
Sodium	60.5	1.0	50	9.867	101	70	130				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICP2-HE_150331B: 18** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-001CMSD2** Method: **E200.7**

Analysis Date: **03/31/15 10:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.00	0.050	1	0.01147	99	70	130	1.007	0.4	20	
Calcium	77.1	1.0	50	26.98	100	70	130	77.29	0.3	20	
Magnesium	58.0	1.0	50	6.41	103	70	130	57.94	0.1	20	
Potassium	53.8	1.0	50	2.358	103	70	130	52.97	1.5	20	
Sodium	61.6	1.0	50	9.867	103	70	130	60.55	1.7	20	

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICP2-HE_150331B: 19** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **03/31/15 10:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.53	0.10	2.5	0	101	90	110				
Calcium	25.4	1.0	25	0	102	90	110				
Magnesium	25.2	1.0	25	0	101	90	110				
Potassium	24.9	1.0	25	0	100	90	110				
Sodium	25.0	1.0	25	0	100	90	110				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICP2-HE_150331B: 31** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **03/31/15 11:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.47	0.10	2.5	0	99	90	110				
Calcium	24.8	1.0	25	0	99	90	110				
Magnesium	24.8	1.0	25	0	99	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105154

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150331B: 31** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **03/31/15 11:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	24.9	1.0	25	0	100	90	110				
Sodium	25.2	1.0	25	0	101	90	110				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICP2-HE_150331B: 34** SampType: **Sample Matrix Spike** Lab ID: **H15030394-006BMS2** Method: **E200.7**

Analysis Date: **03/31/15 11:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.04	0.050	1	0.05402	99	70	130				
Calcium	106	1.0	50	58	96	70	130				
Magnesium	62.5	1.0	50	12.42	100	70	130				
Potassium	56.6	1.0	50	5.531	102	70	130				
Sodium	81.1	1.0	50	29.36	103	70	130				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICP2-HE_150331B: 35** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-006BMSD2** Method: **E200.7**

Analysis Date: **03/31/15 11:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.04	0.050	1	0.05402	99	70	130	1.044	0.5	20	
Calcium	106	1.0	50	58	96	70	130	105.8	0.1	20	
Magnesium	63.0	1.0	50	12.42	101	70	130	62.55	0.7	20	
Potassium	56.5	1.0	50	5.531	102	70	130	56.56	0.0	20	
Sodium	81.0	1.0	50	29.36	103	70	130	81.09	0.1	20	

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICP2-HE_150331B: 43** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **03/31/15 12:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.46	0.10	2.5	0	99	90	110				
Calcium	24.3	1.0	25	0	97	90	110				
Magnesium	24.8	1.0	25	0	99	90	110				
Potassium	24.4	1.0	25	0	97	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105154

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150331B: 43** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **03/31/15 12:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	24.8	1.0	25	0	99	90	110				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICP2-HE_150331B: 49** SampType: **Sample Matrix Spike** Lab ID: **H15030394-016BMS2** Method: **E200.7**

Analysis Date: **03/31/15 12:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.02	0.050	1	0.03822	98	70	130				
Calcium	90.1	1.0	50	42.58	95	70	130				
Magnesium	60.0	1.0	50	9.4	101	70	130				
Potassium	54.5	1.0	50	3.89	101	70	130				
Sodium	72.9	1.0	50	21.54	103	70	130				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICP2-HE_150331B: 50** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-016BMSD2** Method: **E200.7**

Analysis Date: **03/31/15 12:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.03	0.050	1	0.03822	99	70	130	1.015	1.1	20	
Calcium	90.3	1.0	50	42.58	95	70	130	90.13	0.2	20	
Magnesium	60.0	1.0	50	9.4	101	70	130	59.96	0.1	20	
Potassium	54.4	1.0	50	3.89	101	70	130	54.48	0.1	20	
Sodium	72.9	1.0	50	21.54	103	70	130	72.95	0.0	20	

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105158

Date: *27-Apr-15*

Run ID :Run Order: **FIA202-HE_150401A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E365.1**

Analysis Date: **04/01/15 07:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.251	0.010	0.25	0	100	90	110				

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA202-HE_150401A: 10** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **04/01/15 07:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.103	0.010	0.1	0	103	90	110				

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA202-HE_150401A: 11** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E365.1**

Analysis Date: **04/01/15 07:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.00105	0.010		0		0	0				

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA202-HE_150401A: 27** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **04/01/15 08:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.105	0.010	0.1	0	105	90	110				

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA202-HE_150401A: 41** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **04/01/15 08:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.106	0.010	0.1	0	106	90	110				

Associated samples: **H15030394-001D, H15030394-002D, H15030394-003D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105159

Date: *27-Apr-15*

Run ID :Run Order: **FIA203-HE_150401A: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**
Analysis Date: **04/01/15 07:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.525	0.10	0.5	0	105	90	110				

Associated samples: **H15030394-001A, H15030394-004A, H15030394-005A, H15030394-010A, H15030394-013A, H15030394-014A, H15030394-015A**

Run ID :Run Order: **FIA203-HE_150401A: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**
Analysis Date: **04/01/15 07:55** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	-0.0123	0.10		0		0	0				

Associated samples: **H15030394-001A, H15030394-004A, H15030394-005A, H15030394-010A, H15030394-013A, H15030394-014A, H15030394-015A**

Run ID :Run Order: **FIA203-HE_150401A: 26** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**
Analysis Date: **04/01/15 08:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.533	0.10	0.5	0	107	90	110				

Associated samples: **H15030394-001A, H15030394-004A, H15030394-005A, H15030394-010A, H15030394-013A, H15030394-014A, H15030394-015A**

Run ID :Run Order: **FIA203-HE_150401A: 51** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**
Analysis Date: **04/01/15 08:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.528	0.10	0.5	0	106	90	110				

Associated samples: **H15030394-001A, H15030394-004A, H15030394-005A, H15030394-010A, H15030394-013A, H15030394-014A, H15030394-015A**

Run ID :Run Order: **FIA203-HE_150401A: 52** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**
Analysis Date: **04/01/15 08:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	-0.00339	0.10		0		0	0				

Associated samples: **H15030394-001A, H15030394-004A, H15030394-005A, H15030394-010A, H15030394-013A, H15030394-014A, H15030394-015A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105171

Date: *27-Apr-15*

Run ID :Run Order: **FIA203-HE_150401B: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E350.1**

Analysis Date: **04/01/15 10:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	14.2	0.50	15.2	0	93	90	110				

Associated samples: **H15030394-001D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150401B: 8** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E350.1**

Analysis Date: **04/01/15 10:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.983	0.055	1	0	98	90	110				

Associated samples: **H15030394-001D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150401B: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E350.1**

Analysis Date: **04/01/15 10:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	-0.0492	0.050		0		0	0				

Associated samples: **H15030394-001D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150401B: 19** SampType: **Sample Matrix Spike** Lab ID: **H15030393-003EMS** Method: **E350.1**

Analysis Date: **04/01/15 10:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.912	0.055	1	0	91	80	120				

Associated samples: **H15030394-001D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150401B: 20** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030393-003EMSD** Method: **E350.1**

Analysis Date: **04/01/15 10:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.921	0.055	1	0	92	80	120	0.9122	0.9	10	

Associated samples: **H15030394-001D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105171

Date: *27-Apr-15*

Run ID :Run Order: **FIA203-HE_150401B: 23** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**

Analysis Date: **04/01/15 10:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.531	0.050	0.5	0	106	90	110				

Associated samples: **H15030394-001D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150401B: 35** SampType: **Sample Matrix Spike** Lab ID: **H15030394-010DMS** Method: **E350.1**

Analysis Date: **04/01/15 10:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.892	0.055	1	0	89	80	120				

Associated samples: **H15030394-001D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150401B: 36** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-010DMSD** Method: **E350.1**

Analysis Date: **04/01/15 10:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.907	0.055	1	0	91	80	120	0.8922	1.7	10	

Associated samples: **H15030394-001D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150401B: 37** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**

Analysis Date: **04/01/15 10:55** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.543	0.050	0.5	0	109	90	110				

Associated samples: **H15030394-001D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150401B: 40** SampType: **Sample Matrix Spike** Lab ID: **H15030394-011DMS** Method: **E350.1**

Analysis Date: **04/01/15 10:59** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	1.14	0.055	1	0.2159	93	80	120				

Associated samples: **H15030394-001D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105171

Date: *27-Apr-15*

Run ID :Run Order: **FIA203-HE_150401B: 41** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-011DMSD** Method: **E350.1**

Analysis Date: **04/01/15 11:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	1.13	0.055	1	0.2159	**92**	80	120	1.143	**0.8**	10	

Associated samples: **H15030394-001D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Run ID :Run Order: **FIA203-HE_150401B: 51** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**

Analysis Date: **04/01/15 11:12** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.549	0.050	0.5	0	**110**	90	110				

Associated samples: **H15030394-001D, H15030394-004D, H15030394-005D, H15030394-006D, H15030394-007D, H15030394-008D, H15030394-009D, H15030394-010D, H15030394-011D, H15030394-012D, H15030394-013D, H15030394-014D, H15030394-015D, H15030394-016D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105174

Date: *27-Apr-15*

Run ID :Run Order: **FIA203-HE_150401C: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E350.1**
Analysis Date: **04/01/15 13:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	14.2	0.50	15.2	0	94	90	110				

Associated samples: **H15030394-002D, H15030394-003D**

Run ID :Run Order: **FIA203-HE_150401C: 8** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E350.1**
Analysis Date: **04/01/15 13:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.939	0.055	1	0	94	90	110				

Associated samples: **H15030394-002D, H15030394-003D**

Run ID :Run Order: **FIA203-HE_150401C: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**
Analysis Date: **04/01/15 13:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.496	0.050	0.5	0	99	90	110				

Associated samples: **H15030394-002D, H15030394-003D**

Run ID :Run Order: **FIA203-HE_150401C: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E350.1**
Analysis Date: **04/01/15 13:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	-0.0438	0.050		0		0	0				

Associated samples: **H15030394-002D, H15030394-003D**

Run ID :Run Order: **FIA203-HE_150401C: 19** SampType: **Sample Matrix Spike** Lab ID: **H15030421-003AMS** Method: **E350.1**
Analysis Date: **04/01/15 13:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.836	0.055	1	0	84	80	120				

Associated samples: **H15030394-002D, H15030394-003D**

Run ID :Run Order: **FIA203-HE_150401C: 20** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030421-003AMSD** Method: **E350.1**
Analysis Date: **04/01/15 13:17** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.855	0.055	1	0	86	80	120	0.8357	2.3	10	

Associated samples: **H15030394-002D, H15030394-003D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105186

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150401B: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **04/01/15 10:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.767	0.10	0.8	0	96	95	105				
Calcium	39.7	1.0	40	0	99	95	105				
Magnesium	39.1	1.0	40	0	98	95	105				
Potassium	39.6	1.0	40	0	99	95	105				
Sodium	39.4	1.0	40	0	98	95	105				

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICP2-HE_150401B: 7** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-1** Method: **E200.7**

Analysis Date: **04/01/15 10:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.43	0.10	2.5	0	97	95	105				
Calcium	25.1	1.0	25	0	100	95	105				
Magnesium	24.6	1.0	25	0	98	95	105				
Potassium	25.2	1.0	25	0	101	95	105				
Sodium	24.9	1.0	25	0	100	95	105				

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICP2-HE_150401B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **04/01/15 10:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	8.00E-05	0.10		0		0	0				
Calcium	480	1.0	500	0	96	80	120				
Magnesium	512	1.0	500	0	102	80	120				
Potassium	-0.105	1.0		0		0	0				
Sodium	0.0158	1.0		0		0	0				

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICP2-HE_150401B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **04/01/15 10:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.965	0.10	1	0	97	80	120				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105186

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150401B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **04/01/15 10:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	479	1.0	500	0	96	80	120				
Magnesium	513	1.0	500	0	103	80	120				
Potassium	20.4	1.0	20	0	102	80	120				
Sodium	20.2	1.0	20	0	101	80	120				

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICP2-HE_150401B: 47** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **04/01/15 15:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.52	0.10	2.5	0	101	90	110				
Calcium	25.1	1.0	25	0	101	90	110				
Magnesium	24.9	1.0	25	0	100	90	110				
Potassium	24.8	1.0	25	0	99	90	110				
Sodium	24.9	1.0	25	0	99	90	110				

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICP2-HE_150401B: 59** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **04/01/15 16:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.55	0.10	2.5	0	102	90	110				
Calcium	25.5	1.0	25	0	102	90	110				
Magnesium	25.3	1.0	25	0	101	90	110				
Potassium	24.9	1.0	25	0	100	90	110				
Sodium	24.8	1.0	25	0	99	90	110				

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICP2-HE_150401B: 71** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **04/01/15 17:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.52	0.10	2.5	0	101	90	110				
Calcium	25.7	1.0	25	0	103	90	110				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105186

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150401B: 71** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **04/01/15 17:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	25.4	1.0	25	0	**102**	90	110				
Potassium	25.0	1.0	25	0	**100**	90	110				
Sodium	24.9	1.0	25	0	**100**	90	110				

Associated samples: **H15030394-001C, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105320

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150407A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **04/07/15 11:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.302	0.10	0.3	0	101	90	110				
Antimony	0.0620	0.050	0.06	0	103	90	110				
Arsenic	0.0622	0.0050	0.06	0	104	90	110				
Barium	0.0591	0.10	0.06	0	99	90	110				
Beryllium	0.0302	0.0010	0.03	0	101	90	110				
Cadmium	0.0309	0.0010	0.03	0	103	90	110				
Chromium	0.0604	0.010	0.06	0	101	90	110				
Cobalt	0.0609	0.010	0.06	0	102	90	110				
Copper	0.0617	0.010	0.06	0	103	90	110				
Iron	0.302	0.020	0.3	0	101	90	110				
Lead	0.0592	0.010	0.06	0	99	90	110				
Manganese	0.305	0.010	0.3	0	102	90	110				
Molybdenum	0.0593	0.0050	0.06	0	99	90	110				
Nickel	0.0612	0.010	0.06	0	102	90	110				
Selenium	0.0624	0.0050	0.06	0	104	90	110				
Silver	0.0301	0.0050	0.03	0	100	90	110				
Uranium	0.0600	0.0010	0.06	0	100	90	110				
Vanadium	0.0589	0.10	0.06	0	98	90	110				
Zinc	0.0622	0.010	0.06	0	104	90	110				

Associated samples: **H15030394-001C**

Run ID :Run Order: **ICPMS204-B_150407A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **04/07/15 11:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.6	0.10	40	0	104	70	130				
Antimony	9.30E-05	0.050		0							
Arsenic	5.30E-05	0.0050		0							
Barium	0.000123	0.10		0							
Beryllium	-2.80E-05	0.0010		0							
Cadmium	0.000384	0.0010		0							
Chromium	0.00107	0.010		0							
Cobalt	-1.30E-05	0.010		0							
Copper	0.000574	0.010		0							

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105320

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150407A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **04/07/15 11:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	102	0.020	100	0	102	70	130				
Lead	0.000273	0.010		0							
Manganese	0.000210	0.010		0							
Molybdenum	0.884	0.0050	0.8	0	111	70	130				
Nickel	0.000627	0.010		0							
Selenium	0.000351	0.0050		0							
Silver	0.000196	0.0050		0							
Uranium	0.000134	0.0010		0							
Vanadium	0.000141	0.10		0							
Zinc	0.000982	0.010		0							

Associated samples: **H15030394-001C**

Run ID :Run Order: **ICPMS204-B_150407A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **04/07/15 11:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.4	0.10	40	0	104	70	130				
Antimony	9.20E-05	0.050		0		0	0				
Arsenic	0.0109	0.0050	0.01	0	109	70	130				
Barium	9.40E-05	0.10		0		0	0				
Beryllium	-9.30E-05	0.0010		0		0	0				
Cadmium	0.0106	0.0010	0.01	0	106	70	130				
Chromium	0.0218	0.010	0.02	0	109	70	130				
Cobalt	0.0211	0.010	0.02	0	105	70	130				
Copper	0.0209	0.010	0.02	0	104	70	130				
Iron	101	0.020	100	0	101	70	130				
Lead	0.000253	0.010		0		0	0				
Manganese	0.0214	0.010	0.02	0	107	70	130				
Molybdenum	0.876	0.0050	0.8	0	109	70	130				
Nickel	0.0214	0.010	0.02	0	107	70	130				
Selenium	0.0108	0.0050	0.01	0	108	70	130				
Silver	0.0188	0.0050	0.02	0	94	70	130				
Uranium	3.10E-05	0.0010		0		0	0				
Vanadium	0.0212	0.10	0.02	0	106	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105320

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150407A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **04/07/15 11:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	0.0111	0.010	0.01	0	111	70	130				

Associated samples: **H15030394-001C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105331

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150408A: 20** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **04/08/15 10:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.304	0.10	0.3	0	101	90	110				
Antimony	0.0621	0.050	0.06	0	103	90	110				
Arsenic	0.0624	0.0050	0.06	0	104	90	110				
Barium	0.0598	0.10	0.06	0	100	90	110				
Beryllium	0.0308	0.0010	0.03	0	103	90	110				
Cadmium	0.0312	0.0010	0.03	0	104	90	110				
Chromium	0.0609	0.010	0.06	0	101	90	110				
Cobalt	0.0610	0.010	0.06	0	102	90	110				
Copper	0.0622	0.010	0.06	0	104	90	110				
Iron	0.301	0.020	0.3	0	100	90	110				
Lead	0.0599	0.010	0.06	0	100	90	110				
Manganese	0.303	0.010	0.3	0	101	90	110				
Molybdenum	0.0606	0.0050	0.06	0	101	90	110				
Nickel	0.0616	0.010	0.06	0	103	90	110				
Selenium	0.0619	0.0050	0.06	0	103	90	110				
Silver	0.0308	0.0050	0.03	0	103	90	110				
Uranium	0.0606	0.0010	0.06	0	101	90	110				
Vanadium	0.0590	0.10	0.06	0	98	90	110				
Zinc	0.0627	0.010	0.06	0	105	90	110				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICPMS204-B_150408A: 21** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **04/08/15 10:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.0	0.10	40	0	102	70	130				
Antimony	0.000116	0.050		0							
Arsenic	7.90E-05	0.0050		0							
Barium	0.000145	0.10		0							
Beryllium	8.40E-05	0.0010		0							
Cadmium	0.000378	0.0010		0							
Chromium	0.00107	0.010		0							
Cobalt	1.00E-05	0.010		0							
Copper	0.000548	0.010		0							

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105331

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150408A: 21** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **04/08/15 10:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	101	0.020	100	0	**101**	70	130				
Lead	0.000281	0.010		0							
Manganese	0.000222	0.010		0							
Molybdenum	0.886	0.0050	0.8	0	**111**	70	130				
Nickel	0.000650	0.010		0							
Selenium	0.000381	0.0050		0							
Silver	0.000210	0.0050		0							
Uranium	0.000167	0.0010		0							
Vanadium	0.000147	0.10		0							
Zinc	0.000967	0.010		0							

Associated samples: **H15030394-001B, H15030394-002B, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICPMS204-B_150408A: 22** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **04/08/15 10:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	40.9	0.10	40	0	**102**	70	130				
Antimony	0.000141	0.050		0		0	0				
Arsenic	0.0110	0.0050	0.01	0	**110**	70	130				
Barium	0.000116	0.10		0		0	0				
Beryllium	1.00E-05	0.0010		0		0	0				
Cadmium	0.0105	0.0010	0.01	0	**105**	70	130				
Chromium	0.0221	0.010	0.02	0	**110**	70	130				
Cobalt	0.0210	0.010	0.02	0	**105**	70	130				
Copper	0.0210	0.010	0.02	0	**105**	70	130				
Iron	100	0.020	100	0	**100**	70	130				
Lead	0.000249	0.010		0		0	0				
Manganese	0.0209	0.010	0.02	0	**105**	70	130				
Molybdenum	0.864	0.0050	0.8	0	**108**	70	130				
Nickel	0.0213	0.010	0.02	0	**106**	70	130				
Selenium	0.0107	0.0050	0.01	0	**107**	70	130				
Silver	0.0181	0.0050	0.02	0	**90**	70	130				
Uranium	2.90E-05	0.0010		0		0	0				
Vanadium	0.0211	0.10	0.02	0	**105**	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105331

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150408A: 22** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **04/08/15 10:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	0.0111	0.010	0.01	0	111	70	130				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICPMS204-B_150408A: 27** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **04/08/15 10:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	ND	0.0002									
Zinc	0.0003	0.0001									

Associated samples: **H15030394-001B, H15030394-002B**

Run ID :Run Order: **ICPMS204-B_150408A: 28** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**

Analysis Date: **04/08/15 10:40** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.0541	0.0050	0.05	0	108	85	115				
Zinc	0.0546	0.010	0.05	0.0002621	109	85	115				

Associated samples: **H15030394-001B, H15030394-002B**

Run ID :Run Order: **ICPMS204-B_150408A: 109** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **04/08/15 14:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.309	0.10	0.3	0	103	90	110				
Antimony	0.0639	0.050	0.06	0	106	90	110				
Arsenic	0.0634	0.0050	0.06	0	106	90	110				
Barium	0.0613	0.10	0.06	0	102	90	110				
Beryllium	0.0309	0.0010	0.03	0	103	90	110				
Cadmium	0.0319	0.0010	0.03	0	106	90	110				
Chromium	0.0618	0.010	0.06	0	103	90	110				
Cobalt	0.0626	0.010	0.06	0	104	90	110				
Copper	0.0633	0.010	0.06	0	106	90	110				
Iron	0.306	0.020	0.3	0	102	90	110				
Lead	0.0609	0.010	0.06	0	101	90	110				
Manganese	0.311	0.010	0.3	0	104	90	110				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105331

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150408A: 109** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **04/08/15 14:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	0.0606	0.0050	0.06	0	101	90	110				
Nickel	0.0623	0.010	0.06	0	104	90	110				
Selenium	0.0630	0.0050	0.06	0	105	90	110				
Silver	0.0322	0.0050	0.03	0	107	90	110				
Uranium	0.0621	0.0010	0.06	0	104	90	110				
Vanadium	0.0604	0.10	0.06	0	101	90	110				
Zinc	0.0640	0.010	0.06	0	107	90	110				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICPMS204-B_150408A: 110** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **04/08/15 14:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.6	0.10	40	0	104	70	130				
Antimony	0.000137	0.050		0							
Arsenic	0.000103	0.0050		0							
Barium	0.000131	0.10		0							
Beryllium	9.40E-05	0.0010		0							
Cadmium	0.000441	0.0010		0							
Chromium	0.00112	0.010		0							
Cobalt	2.80E-05	0.010		0							
Copper	0.000595	0.010		0							
Iron	103	0.020	100	0	103	70	130				
Lead	0.000261	0.010		0							
Manganese	0.000246	0.010		0							
Molybdenum	0.895	0.0050	0.8	0	112	70	130				
Nickel	0.000681	0.010		0							
Selenium	0.000548	0.0050		0							
Silver	0.000314	0.0050		0							
Uranium	0.000195	0.0010		0							
Vanadium	0.000174	0.10		0							
Zinc	0.00112	0.010		0							

Associated samples: **H15030394-001B, H15030394-002B, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105331

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150408A: 111** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **04/08/15 14:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	42.8	0.10	40	0	107	70	130				
Antimony	0.000141	0.050		0		0	0				
Arsenic	0.0113	0.0050	0.01	0	113	70	130				
Barium	0.000109	0.10		0		0	0				
Beryllium	2.10E-05	0.0010		0		0	0				
Cadmium	0.0110	0.0010	0.01	0	110	70	130				
Chromium	0.0228	0.010	0.02	0	114	70	130				
Cobalt	0.0221	0.010	0.02	0	110	70	130				
Copper	0.0217	0.010	0.02	0	109	70	130				
Iron	105	0.020	100	0	105	70	130				
Lead	0.000237	0.010		0		0	0				
Manganese	0.0219	0.010	0.02	0	109	70	130				
Molybdenum	0.911	0.0050	0.8	0	114	70	130				
Nickel	0.0219	0.010	0.02	0	110	70	130				
Selenium	0.0114	0.0050	0.01	0	115	70	130				
Silver	0.0194	0.0050	0.02	0	97	70	130				
Uranium	3.00E-05	0.0010		0		0	0				
Vanadium	0.0221	0.10	0.02	0	111	70	130				
Zinc	0.0114	0.010	0.01	0	114	70	130				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICPMS204-B_150408A: 118** SampType: **Sample Matrix Spike** Lab ID: **H15030382-019BMS** Method: **E200.8**

Analysis Date: **04/08/15 14:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.0567	0.0010	0.05	0.0004818	112	70	130				
Zinc	0.0555	0.010	0.05	0.003067	105	70	130				

Associated samples: **H15030394-001B, H15030394-002B**

Run ID :Run Order: **ICPMS204-B_150408A: 119** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030382-019BMSD** Method: **E200.8**

Analysis Date: **04/08/15 14:40** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.0580	0.0010	0.05	0.0004818	115	70	130	0.05668	2.3	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105331

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150408A: 119** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030382-019BMSD** Method: **E200.8**

Analysis Date: **04/08/15 14:40** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	0.0574	0.010	0.05	0.003067	109	70	130	0.05546	3.4	20	

Associated samples: **H15030394-001B, H15030394-002B**

Run ID :Run Order: **ICPMS204-B_150408A: 266** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **04/08/15 23:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.312	0.10	0.3	0	104	90	110				
Antimony	0.0616	0.050	0.06	0	103	90	110				
Arsenic	0.0617	0.0050	0.06	0	103	90	110				
Barium	0.0600	0.10	0.06	0	100	90	110				
Beryllium	0.0304	0.0010	0.03	0	101	90	110				
Cadmium	0.0319	0.0010	0.03	0	106	90	110				
Chromium	0.0598	0.010	0.06	0	100	90	110				
Cobalt	0.0607	0.010	0.06	0	101	90	110				
Copper	0.0616	0.010	0.06	0	103	90	110				
Iron	0.305	0.020	0.3	0	102	90	110				
Lead	0.0584	0.010	0.06	0	97	90	110				
Manganese	0.306	0.010	0.3	0	102	90	110				
Molybdenum	0.0587	0.0050	0.06	0	98	90	110				
Nickel	0.0613	0.010	0.06	0	102	90	110				
Selenium	0.0612	0.0050	0.06	0	102	90	110				
Silver	0.0302	0.0050	0.03	0	101	90	110				
Uranium	0.0608	0.0010	0.06	0	101	90	110				
Vanadium	0.0587	0.10	0.06	0	98	90	110				
Zinc	0.0634	0.010	0.06	0	106	90	110				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICPMS204-B_150408A: 267** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **04/08/15 23:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.5	0.10	40	0	104	70	130				
Antimony	7.60E-05	0.050		0							

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105331

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150408A: 267** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **04/08/15 23:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	8.50E-05	0.0050		0							
Barium	0.000102	0.10		0							
Beryllium	1.70E-05	0.0010		0							
Cadmium	0.000713	0.0010		0							
Chromium	0.00109	0.010		0							
Cobalt	2.30E-05	0.010		0							
Copper	0.000564	0.010		0							
Iron	101	0.020	100	0	**101**	70	130				
Lead	0.000231	0.010		0							
Manganese	0.000229	0.010		0							
Molybdenum	0.883	0.0050	0.8	0	**110**	70	130				
Nickel	0.000659	0.010		0							
Selenium	0.000224	0.0050		0							
Silver	0.000110	0.0050		0							
Uranium	5.40E-05	0.0010		0							
Vanadium	0.000162	0.10		0							
Zinc	0.00114	0.010		0							

Associated samples: **H15030394-001B, H15030394-002B, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Run ID :Run Order: **ICPMS204-B_150408A: 268** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **04/08/15 23:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	42.1	0.10	40	0	**105**	70	130				
Antimony	0.000124	0.050		0		0	0				
Arsenic	0.0109	0.0050	0.01	0	**109**	70	130				
Barium	0.000113	0.10		0		0	0				
Beryllium	7.00E-06	0.0010		0		0	0				
Cadmium	0.0106	0.0010	0.01	0	**106**	70	130				
Chromium	0.0215	0.010	0.02	0	**107**	70	130				
Cobalt	0.0209	0.010	0.02	0	**105**	70	130				
Copper	0.0204	0.010	0.02	0	**102**	70	130				
Iron	99.5	0.020	100	0	**99**	70	130				
Lead	0.000221	0.010		0		0	0				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105331

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150408A: 268** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **04/08/15 23:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.0199	0.010	0.02	0	100	70	130				
Molybdenum	0.892	0.0050	0.8	0	111	70	130				
Nickel	0.0211	0.010	0.02	0	105	70	130				
Selenium	0.0103	0.0050	0.01	0	103	70	130				
Silver	0.0191	0.0050	0.02	0	96	70	130				
Uranium	1.40E-05	0.0010		0		0	0				
Vanadium	0.0211	0.10	0.02	0	105	70	130				
Zinc	0.0109	0.010	0.01	0	109	70	130				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-002C, H15030394-003C, H15030394-004C, H15030394-005C, H15030394-006C, H15030394-007C, H15030394-008C, H15030394-009C, H15030394-010C, H15030394-011C, H15030394-012C, H15030394-013C, H15030394-014C, H15030394-015C, H15030394-016C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105431

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150409C: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **04/09/15 09:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.309	0.10	0.3	0	103	90	110				
Antimony	0.0639	0.050	0.06	0	106	90	110				
Arsenic	0.0623	0.0050	0.06	0	104	90	110				
Barium	0.0603	0.10	0.06	0	101	90	110				
Beryllium	0.0315	0.0010	0.03	0	105	90	110				
Cadmium	0.0316	0.0010	0.03	0	105	90	110				
Chromium	0.0621	0.010	0.06	0	104	90	110				
Cobalt	0.0625	0.010	0.06	0	104	90	110				
Copper	0.0631	0.010	0.06	0	105	90	110				
Iron	0.315	0.020	0.3	0	105	90	110				
Lead	0.0605	0.010	0.06	0	101	90	110				
Manganese	0.313	0.010	0.3	0	104	90	110				
Molybdenum	0.0600	0.0050	0.06	0	100	90	110				
Nickel	0.0629	0.010	0.06	0	105	90	110				
Selenium	0.0617	0.0050	0.06	0	103	90	110				
Silver	0.0303	0.0050	0.03	0	101	90	110				
Uranium	0.0607	0.0010	0.06	0	101	90	110				
Vanadium	0.0604	0.10	0.06	0	101	90	110				
Zinc	0.0624	0.010	0.06	0	104	90	110				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150409C: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **04/09/15 09:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	39.8	0.10	40	0	99	70	130				
Antimony	0.000115	0.050		0							
Arsenic	7.60E-05	0.0050		0							
Barium	8.90E-05	0.10		0							
Beryllium	3.00E-06	0.0010		0							
Cadmium	0.000389	0.0010		0							
Chromium	0.00111	0.010		0							
Cobalt	-1.00E-06	0.010		0							
Copper	0.000585	0.010		0							

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105431

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150409C: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **04/09/15 09:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	99.6	0.020	100	0	**100**	70	130				
Lead	0.000273	0.010		0							
Manganese	0.000265	0.010		0							
Molybdenum	0.870	0.0050	0.8	0	**109**	70	130				
Nickel	0.000578	0.010		0							
Selenium	-4.90E-05	0.0050		0							
Silver	0.000197	0.0050		0							
Uranium	0.000100	0.0010		0							
Vanadium	0.000158	0.10		0							
Zinc	0.00111	0.010		0							

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150409C: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **04/09/15 09:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	40.2	0.10	40	0	**100**	70	130				
Antimony	0.000135	0.050		0		0	0				
Arsenic	0.0109	0.0050	0.01	0	**109**	70	130				
Barium	8.30E-05	0.10		0		0	0				
Beryllium	1.60E-05	0.0010		0		0	0				
Cadmium	0.0106	0.0010	0.01	0	**106**	70	130				
Chromium	0.0216	0.010	0.02	0	**108**	70	130				
Cobalt	0.0206	0.010	0.02	0	**103**	70	130				
Copper	0.0206	0.010	0.02	0	**103**	70	130				
Iron	98.8	0.020	100	0	**99**	70	130				
Lead	0.000245	0.010		0		0	0				
Manganese	0.0210	0.010	0.02	0	**105**	70	130				
Molybdenum	0.867	0.0050	0.8	0	**108**	70	130				
Nickel	0.0210	0.010	0.02	0	**105**	70	130				
Selenium	0.0106	0.0050	0.01	0	**106**	70	130				
Silver	0.0188	0.0050	0.02	0	**94**	70	130				
Uranium	2.40E-05	0.0010		0		0	0				
Vanadium	0.0208	0.10	0.02	0	**104**	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105431

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150409C: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **04/09/15 09:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	0.0110	0.010	0.01	0	110	70	130				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150409C: 25** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **04/09/15 11:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0008	0.0008									
Antimony	ND	4E-05									
Arsenic	ND	6E-05									
Barium	9E-05	8E-05									
Beryllium	ND	0.0002									
Cadmium	3E-05	2E-05									
Chromium	ND	3E-05									
Cobalt	ND	3E-05									
Copper	8E-05	6E-05									
Iron	ND	0.0006									
Lead	4E-05	3E-05									
Manganese	ND	4E-05									
Molybdenum	ND	3E-05									
Nickel	ND	3E-05									
Selenium	ND	0.0002									
Silver	ND	3E-05									
Uranium	ND	1.0E-05									
Vanadium	ND	3E-05									
Zinc	0.0002	0.0001									

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150409C: 26** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**

Analysis Date: **04/09/15 11:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0518	0.10	0.05	0.0007882	102	85	115				
Antimony	0.0519	0.050	0.05	0	104	85	115				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105431

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150409C: 26** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**

Analysis Date: **04/09/15 11:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.0527	0.0050	0.05	0	105	85	115				
Barium	0.0524	0.10	0.05	0.0000948	105	85	115				
Beryllium	0.0542	0.0010	0.05	0	108	85	115				
Cadmium	0.0536	0.0010	0.05	0.0000284	107	85	115				
Chromium	0.0528	0.010	0.05	0	106	85	115				
Cobalt	0.0530	0.010	0.05	0	106	85	115				
Copper	0.0536	0.010	0.05	0.0000755	107	85	115				
Iron	0.158	0.020	0.15	0	106	85	115				
Lead	0.0528	0.010	0.05	0.0000405	106	85	115				
Manganese	0.0530	0.010	0.05	0	106	85	115				
Molybdenum	0.0521	0.0050	0.05	0	104	85	115				
Nickel	0.0529	0.010	0.05	0	106	85	115				
Selenium	0.0550	0.0050	0.05	0	110	85	115				
Silver	0.0209	0.0050	0.02	0	105	85	115				
Uranium	0.0515	0.0010	0.05	0	103	85	115				
Vanadium	0.0510	0.10	0.05	0	102	85	115				
Zinc	0.0548	0.010	0.05	0.0002018	109	85	115				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150409C: 29** SampType: **Sample Matrix Spike** Lab ID: **H15030394-001BMS** Method: **E200.8**

Analysis Date: **04/09/15 11:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0486	0.030	0.05	0.001763	94	70	130				
Antimony	0.0477	0.0010	0.05	0.0002566	95	70	130				
Arsenic	0.0522	0.0010	0.05	0.003598	97	70	130				
Barium	0.0838	0.050	0.05	0.03676	94	70	130				
Beryllium	0.0500	0.0010	0.05	0	100	70	130				
Cadmium	0.0478	0.0010	0.05	0.0000254	96	70	130				
Chromium	0.0469	0.0050	0.05	0.0001854	93	70	130				
Cobalt	0.0464	0.0050	0.05	0.0000507	93	70	130				
Copper	0.0515	0.0050	0.05	0.004175	95	70	130				
Iron	0.259	0.020	0.15	0.1215	92	70	130				
Lead	0.0475	0.0010	0.05	0.0001682	95	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105431

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150409C: 29** SampType: **Sample Matrix Spike** Lab ID: **H15030394-001BMS** Method: **E200.8**

Analysis Date: **04/09/15 11:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.0940	0.0010	0.05	0.04779	92	70	130				
Molybdenum	0.0523	0.0010	0.05	0.005518	94	70	130				
Nickel	0.0464	0.0050	0.05	0.000318	92	70	130				
Selenium	0.0496	0.0010	0.05	0	99	70	130				
Silver	0.0180	0.0010	0.02	0	90	70	130				
Uranium	0.0514	0.00030	0.05	0.004329	94	70	130				
Vanadium	0.0478	0.010	0.05	0.002138	91	70	130				
Zinc	0.0513	0.010	0.05	0.004265	94	70	130				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150409C: 30** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-001BMSD** Method: **E200.8**

Analysis Date: **04/09/15 11:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0566	0.030	0.05	0.001763	110	70	130	0.04858	15	20	
Antimony	0.0558	0.0010	0.05	0.0002566	111	70	130	0.04768	16	20	
Arsenic	0.0600	0.0010	0.05	0.003598	113	70	130	0.05222	14	20	
Barium	0.0910	0.050	0.05	0.03676	109	70	130	0.08375	8.3	20	
Beryllium	0.0586	0.0010	0.05	0	117	70	130	0.05005	16	20	
Cadmium	0.0560	0.0010	0.05	0.0000254	112	70	130	0.04784	16	20	
Chromium	0.0548	0.0050	0.05	0.0001854	109	70	130	0.04688	16	20	
Cobalt	0.0541	0.0050	0.05	0.0000507	108	70	130	0.0464	15	20	
Copper	0.0596	0.0050	0.05	0.004175	111	70	130	0.05151	15	20	
Iron	0.282	0.020	0.15	0.1215	107	70	130	0.2594	8.3	20	
Lead	0.0549	0.0010	0.05	0.0001682	109	70	130	0.04752	14	20	
Manganese	0.102	0.0010	0.05	0.04779	108	70	130	0.09402	8.0	20	
Molybdenum	0.0608	0.0010	0.05	0.005518	111	70	130	0.05234	15	20	
Nickel	0.0544	0.0050	0.05	0.000318	108	70	130	0.04644	16	20	
Selenium	0.0575	0.0010	0.05	0	115	70	130	0.04959	15	20	
Silver	0.0212	0.0010	0.02	0	106	70	130	0.01795	16	20	
Uranium	0.0590	0.00030	0.05	0.004329	109	70	130	0.05137	14	20	
Vanadium	0.0554	0.010	0.05	0.002138	107	70	130	0.04779	15	20	
Zinc	0.0608	0.010	0.05	0.004265	113	70	130	0.05131	17	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105431

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150409C: 30** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-001BMSD** Method: **E200.8**

Analysis Date: **04/09/15 11:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150409C: 55** SampType: **Sample Matrix Spike** Lab ID: **H15030394-011BMS** Method: **E200.8**

Analysis Date: **04/09/15 14:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0569	0.030	0.05	0.006191	101	70	130				
Antimony	0.0510	0.0010	0.05	0.0002689	101	70	130				
Arsenic	0.0588	0.0010	0.05	0.006204	105	70	130				
Barium	0.0823	0.050	0.05	0.03221	100	70	130				
Beryllium	0.0535	0.0010	0.05	0	107	70	130				
Cadmium	0.0516	0.0010	0.05	0.0000914	103	70	130				
Chromium	0.0508	0.0050	0.05	0.0000872	101	70	130				
Cobalt	0.0509	0.0050	0.05	0.0001451	102	70	130				
Copper	0.0631	0.0050	0.05	0.01167	103	70	130				
Iron	0.202	0.020	0.15	0.05174	100	70	130				
Lead	0.0508	0.0010	0.05	0.0001614	101	70	130				
Manganese	0.234	0.0010	0.05	0.1834	102	70	130				
Molybdenum	0.0544	0.0010	0.05	0.003997	101	70	130				
Nickel	0.0512	0.0050	0.05	0.0007346	101	70	130				
Selenium	0.0552	0.0010	0.05	0.0003774	110	70	130				
Silver	0.0188	0.0010	0.02	0	94	70	130				
Uranium	0.0522	0.00030	0.05	0.003947	97	70	130				
Vanadium	0.0526	0.010	0.05	0.001965	101	70	130				
Zinc	0.0784	0.010	0.05	0.02719	102	70	130				

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150409C: 56** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-011BMSD** Method: **E200.8**

Analysis Date: **04/09/15 14:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0594	0.030	0.05	0.006191	106	70	130	0.05692	4.2	20	
Antimony	0.0530	0.0010	0.05	0.0002689	106	70	130	0.05095	4.0	20	
Arsenic	0.0592	0.0010	0.05	0.006204	106	70	130	0.05876	0.7	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105431

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150409C: 56** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-011BMSD** Method: **E200.8**

Analysis Date: **04/09/15 14:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	0.0839	0.050	0.05	0.03221	103	70	130	0.08228	1.9	20	
Beryllium	0.0552	0.0010	0.05	0	110	70	130	0.05351	3.1	20	
Cadmium	0.0528	0.0010	0.05	0.0000914	105	70	130	0.05159	2.2	20	
Chromium	0.0516	0.0050	0.05	0.0000872	103	70	130	0.05082	1.5	20	
Cobalt	0.0515	0.0050	0.05	0.0001451	103	70	130	0.05091	1.2	20	
Copper	0.0637	0.0050	0.05	0.01167	104	70	130	0.06309	1.0	20	
Iron	0.204	0.020	0.15	0.05174	102	70	130	0.2021	1.1	20	
Lead	0.0511	0.0010	0.05	0.0001614	102	70	130	0.05075	0.7	20	
Manganese	0.237	0.0010	0.05	0.1834	108	70	130	0.2343	1.3	20	
Molybdenum	0.0559	0.0010	0.05	0.003997	104	70	130	0.0544	2.7	20	
Nickel	0.0519	0.0050	0.05	0.0007346	102	70	130	0.05116	1.5	20	
Selenium	0.0553	0.0010	0.05	0.0003774	110	70	130	0.05519	0.2	20	
Silver	0.0194	0.0010	0.02	0	97	70	130	0.01883	3.0	20	
Uranium	0.0532	0.00030	0.05	0.003947	98	70	130	0.05225	1.8	20	
Vanadium	0.0528	0.010	0.05	0.001965	102	70	130	0.05265	0.3	20	
Zinc	0.0792	0.010	0.05	0.02719	104	70	130	0.07839	1.1	20	

Associated samples: **H15030394-001B, H15030394-002B, H15030394-003B, H15030394-004B, H15030394-005B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105453

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413B: 24** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **04/13/15 11:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.309	0.10	0.3	0	103	90	110				
Beryllium	0.0315	0.0010	0.03	0	105	90	110				
Cadmium	0.0313	0.0010	0.03	0	104	90	110				
Lead	0.0608	0.010	0.06	0	101	90	110				

Associated samples: **H15030394-001B, H15030394-003B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150413B: 25** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **04/13/15 11:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	42.0	0.10	40	0	105	70	130				
Beryllium	4.70E-05	0.0010		0							
Cadmium	0.000655	0.0010		0							
Lead	0.000346	0.010		0							

Associated samples: **H15030394-001B, H15030394-003B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150413B: 26** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **04/13/15 11:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.9	0.10	40	0	105	70	130				
Beryllium	4.80E-05	0.0010		0		0	0				
Cadmium	0.0115	0.0010	0.01	0	115	70	130				
Lead	0.000293	0.010		0		0	0				

Associated samples: **H15030394-001B, H15030394-003B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150413B: 34** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **04/13/15 13:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0008									
Beryllium	ND	0.0002									
Cadmium	ND	2E-05									
Lead	ND	3E-05									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105453

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413B: 34** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **04/13/15 13:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15030394-001B, H15030394-003B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150413B: 35** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**

Analysis Date: **04/13/15 13:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0535	0.10	0.05	0	107	85	115				
Beryllium	0.0555	0.0010	0.05	0	111	85	115				
Cadmium	0.0538	0.0010	0.05	0	108	85	115				
Lead	0.0523	0.010	0.05	0	105	85	115				

Associated samples: **H15030394-001B, H15030394-003B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150413B: 57** SampType: **Sample Matrix Spike** Lab ID: **H15030394-008BMS** Method: **E200.8**

Analysis Date: **04/13/15 15:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0566	0.030	0.05	0.008585	96	70	130				
Beryllium	0.0562	0.0010	0.05	0	112	70	130				
Cadmium	0.0525	0.0010	0.05	0.0000958	105	70	130				
Lead	0.0514	0.0010	0.05	0.0001993	102	70	130				

Associated samples: **H15030394-001B, H15030394-003B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150413B: 58** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-008BMSD** Method: **E200.8**

Analysis Date: **04/13/15 15:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0591	0.030	0.05	0.008585	101	70	130	0.05659	4.4	20	
Beryllium	0.0592	0.0010	0.05	0	118	70	130	0.05622	5.1	20	
Cadmium	0.0536	0.0010	0.05	0.0000958	107	70	130	0.0525	2.0	20	
Lead	0.0526	0.0010	0.05	0.0001993	105	70	130	0.05138	2.4	20	

Associated samples: **H15030394-001B, H15030394-003B, H15030394-006B, H15030394-007B, H15030394-008B, H15030394-009B, H15030394-010B, H15030394-011B, H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105454

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **04/13/15 08:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.01	0.10	4	0	100	90	110				
Barium	0.788	0.10	0.8	0	98	90	110				
Beryllium	0.403	0.0010	0.4	0	101	90	110				
Boron	0.792	0.10	0.8	0	99	90	110				
Cobalt	0.778	0.010	0.8	0	97	90	110				
Copper	0.793	0.010	0.8	0	99	90	110				
Iron	3.92	0.020	4	0	98	90	110				
Manganese	3.94	0.010	4	0	98	90	110				
Nickel	0.769	0.010	0.8	0	96	90	110				
Zinc	0.794	0.010	0.8	0	99	90	110				

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A**

Run ID :Run Order: **ICP2-HE_150413B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **04/13/15 09:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	525	0.10	500	0	105	80	120				
Barium	7.00E-05	0.10		0		0	0				
Beryllium	1.00E-05	0.0010		0		0	0				
Boron	0.00201	0.10		0		0	0				
Cobalt	-0.00908	0.010		0		0	0				
Copper	0.000600	0.010		0		0	0				
Iron	183	0.020	200	0	92	80	120				
Manganese	-0.00914	0.010		0		0	0				
Nickel	0.00289	0.010		0		0	0				
Zinc	0.00221	0.010		0		0	0				

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A**

Run ID :Run Order: **ICP2-HE_150413B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **04/13/15 09:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	526	0.10	500	0	105	80	120				
Barium	0.491	0.10	0.5	0	98	80	120				
Beryllium	0.492	0.0010	0.5	0	98	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105454

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150413B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **04/13/15 09:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.991	0.10	1	0	99	80	120				
Cobalt	0.461	0.010	0.5	0	92	80	120				
Copper	0.496	0.010	0.5	0	99	80	120				
Iron	185	0.020	200	0	93	80	120				
Manganese	0.472	0.010	0.5	0	94	80	120				
Nickel	0.919	0.010	1	0	92	80	120				
Zinc	0.989	0.010	1	0	99	80	120				

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105464

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 56** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **04/13/15 21:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 8	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0610	0.050	0.06	0	102	90	110				
Arsenic	0.0601	0.0050	0.06	0	100	90	110				
Cadmium	0.0305	0.0010	0.03	0	102	90	110				
Chromium	0.0594	0.010	0.06	0	99	90	110				
Lead	0.0592	0.010	0.06	0	99	90	110				
Molybdenum	0.0591	0.0050	0.06	0	99	90	110				
Selenium	0.0605	0.0050	0.06	0	101	90	110				
Silver	0.0289	0.0050	0.03	0	96	90	110				

Associated samples: **H15030394-018A, H15030394-019A, H15030394-021A, H15030394-022A, H15030394-024A, H15030394-025A**

Run ID :Run Order: **ICPMS204-B_150413C: 57** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **04/13/15 21:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 8	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.000122	0.050		0							
Arsenic	0.000122	0.0050		0							
Cadmium	0.000582	0.0010		0							
Chromium	0.00108	0.010		0							
Lead	0.000291	0.010		0							
Molybdenum	0.891	0.0050	0.8	0	111	70	130				
Selenium	0.000316	0.0050		0							
Silver	0.000210	0.0050		0							

Associated samples: **H15030394-018A, H15030394-019A, H15030394-021A, H15030394-022A, H15030394-024A, H15030394-025A**

Run ID :Run Order: **ICPMS204-B_150413C: 58** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **04/13/15 21:12** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 8	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.000113	0.050		0		0	0				
Arsenic	0.0110	0.0050	0.01	0	110	70	130				
Cadmium	0.0112	0.0010	0.01	0	112	70	130				
Chromium	0.0221	0.010	0.02	0	111	70	130				
Lead	0.000265	0.010		0		0	0				
Molybdenum	0.899	0.0050	0.8	0	112	70	130				
Selenium	0.0111	0.0050	0.01	0	111	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105464

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 58** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **04/13/15 21:12** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 8	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	0.0188	0.0050	0.02	0	94	70	130				

Associated samples: **H15030394-018A, H15030394-019A, H15030394-021A, H15030394-022A, H15030394-024A, H15030394-025A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105464

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150413C: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **04/13/15 10:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 8	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0619	0.0010	0.06	0	103	90	110				
Arsenic	0.0624	0.0010	0.06	0	104	90	110				
Cadmium	0.0309	0.0010	0.03	0	103	90	110				
Chromium	0.0606	0.0010	0.06	0	101	90	110				
Lead	0.0598	0.0010	0.06	0	100	90	110				
Molybdenum	0.0595	0.0010	0.06	0	99	90	110				
Selenium	0.0613	0.0010	0.06	0	102	90	110				
Silver	0.0300	0.0010	0.03	0	100	90	110				

Associated samples: **H15030394-018A, H15030394-019A, H15030394-021A, H15030394-022A, H15030394-024A, H15030394-025A**

Run ID :Run Order: **ICPMS204-B_150413C: 24** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **04/13/15 11:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 8	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0633	0.0010	0.06	0	105	90	110				
Arsenic	0.0636	0.0010	0.06	0	106	90	110				
Cadmium	0.0313	0.0010	0.03	0	104	90	110				
Chromium	0.0612	0.0010	0.06	0	102	90	110				
Lead	0.0608	0.0010	0.06	0	101	90	110				
Molybdenum	0.0607	0.0010	0.06	0	101	90	110				
Selenium	0.0621	0.0010	0.06	0	104	90	110				
Silver	0.0308	0.0010	0.03	0	103	90	110				

Associated samples: **H15030394-018A, H15030394-019A, H15030394-021A, H15030394-022A, H15030394-024A, H15030394-025A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105478

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150414A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**
Analysis Date: **04/14/15 10:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.297	0.10	0.3	0	99	90	110				

Associated samples: **H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150414A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**
Analysis Date: **04/14/15 10:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.2	0.10	40	0	103	70	130				

Associated samples: **H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150414A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**
Analysis Date: **04/14/15 10:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	42.5	0.10	40	0	106	70	130				

Associated samples: **H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150414A: 16** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**
Analysis Date: **04/14/15 10:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0008									

Associated samples: **H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150414A: 17** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**
Analysis Date: **04/14/15 10:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0531	0.10	0.05	0	106	85	115				

Associated samples: **H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150414A: 20** SampType: **Sample Matrix Spike** Lab ID: **H15030394-012BMS** Method: **E200.8**
Analysis Date: **04/14/15 10:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.270	0.030	0.25	0.007645	105	70	130				

Associated samples: **H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105478

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150414A: 21** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15030394-012BMSD** Method: **E200.8**

Analysis Date: **04/14/15 10:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.245	0.030	0.25	0.007645	95	70	130	0.2699	9.5	20	

Associated samples: **H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150414A: 50** SampType: **Sample Matrix Spike** Lab ID: **H15040091-003BMS** Method: **E200.8**

Analysis Date: **04/14/15 18:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0526	0.030	0.05	0.001409	102	70	130				

Associated samples: **H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Run ID :Run Order: **ICPMS204-B_150414A: 51** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15040091-003BMSD** Method: **E200.8**

Analysis Date: **04/14/15 18:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0525	0.030	0.05	0.001409	102	70	130	0.05257	0.1	20	

Associated samples: **H15030394-012B, H15030394-013B, H15030394-014B, H15030394-015B, H15030394-016B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105480

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150414B: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **04/14/15 10:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0614	0.0010	0.06	0	**102**	90	110				
Arsenic	0.0613	0.0010	0.06	0	**102**	90	110				
Cadmium	0.0306	0.0010	0.03	0	**102**	90	110				
Chromium	0.0598	0.0010	0.06	0	**100**	90	110				
Lead	0.0591	0.0010	0.06	0	**98**	90	110				
Molybdenum	0.0586	0.0010	0.06	0	**98**	90	110				
Selenium	0.0604	0.0010	0.06	0	**101**	90	110				
Silver	0.0300	0.0010	0.03	0	**100**	90	110				
Uranium	0.0584	0.00030	0.06	0	**97**	90	110				
Vanadium	0.0588	0.0010	0.06	0	**98**	90	110				

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105610

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150420B: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **04/20/15 09:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.08	0.10	4	0	102	90	110				
Barium	0.794	0.10	0.8	0	99	90	110				
Beryllium	0.402	0.0010	0.4	0	101	90	110				
Boron	0.784	0.10	0.8	0	98	90	110				
Copper	0.793	0.010	0.8	0	99	90	110				
Iron	3.93	0.020	4	0	98	90	110				
Manganese	3.95	0.010	4	0	99	90	110				
Nickel	0.780	0.010	0.8	0	97	90	110				
Silver	0.385	0.011	0.4	0	96	90	110				
Vanadium	0.795	0.10	0.8	0	99	90	110				
Zinc	0.802	0.010	0.8	0	100	90	110				

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A, H15030394-026A, H15030394-028A, H15030394-029A, H15030394-031A, H15030394-032A, H15030394-034A, H15030394-035A, H15030394-037A, H15030394-038A, H15030394-040A, H15030394-041A, H15030394-043A, H15030394-044A, H15030394-046A, H15030394-049A, H15030394-050A, H15030394-052A, H15030394-053A, H15030394-055A, H15030394-056A, H15030394-058A, H15030394-059A, H15030394-061A, H15030394-062A, H15030394-064A**

Run ID :Run Order: **ICP2-HE_150420B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **04/20/15 09:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	542	0.10	500	0	108	80	120				
Barium	0.000140	0.10		0		0	0				
Beryllium	-9.00E-05	0.0010		0		0	0				
Boron	0.000150	0.10		0		0	0				
Copper	0.00417	0.010		0		0	0				
Iron	186	0.020	200	0	93	80	120				
Manganese	-0.00888	0.010		0		0	0				
Nickel	0.00720	0.010		0		0	0				
Silver	0.0386	0.011		0		0	0				
Vanadium	0.00219	0.10		0		0	0				
Zinc	0.00224	0.010		0		0	0				

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A, H15030394-026A, H15030394-028A, H15030394-029A, H15030394-031A, H15030394-032A, H15030394-034A, H15030394-035A, H15030394-037A, H15030394-038A, H15030394-040A, H15030394-041A, H15030394-043A, H15030394-044A, H15030394-046A, H15030394-049A, H15030394-050A, H15030394-052A, H15030394-053A, H15030394-055A, H15030394-056A, H15030394-058A, H15030394-059A, H15030394-061A, H15030394-062A, H15030394-064A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105610

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150420B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **04/20/15 09:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	533	0.10	500	0	**107**	80	120				
Barium	0.494	0.10	0.5	0	**99**	80	120				
Beryllium	0.490	0.0010	0.5	0	**98**	80	120				
Boron	0.989	0.10	1	0	**99**	80	120				
Copper	0.499	0.010	0.5	0	**100**	80	120				
Iron	182	0.020	200	0	**91**	80	120				
Manganese	0.464	0.010	0.5	0	**93**	80	120				
Nickel	0.911	0.010	1	0	**91**	80	120				
Silver	1.08	0.011	1	0	**108**	80	120				
Vanadium	0.484	0.10	0.5	0	**97**	80	120				
Zinc	0.981	0.010	1	0	**98**	80	120				

Associated samples: **H15030394-019A, H15030394-022A, H15030394-025A, H15030394-026A, H15030394-028A, H15030394-029A, H15030394-031A, H15030394-032A, H15030394-034A, H15030394-035A, H15030394-037A, H15030394-038A, H15030394-040A, H15030394-041A, H15030394-043A, H15030394-044A, H15030394-046A, H15030394-049A, H15030394-050A, H15030394-052A, H15030394-053A, H15030394-055A, H15030394-056A, H15030394-058A, H15030394-059A, H15030394-061A, H15030394-062A, H15030394-064A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105618

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150420B: 8** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **04/20/15 22:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0618	0.050	0.06	0	**103**	90	110				
Arsenic	0.0616	0.0050	0.06	0	**103**	90	110				
Cadmium	0.0317	0.0010	0.03	0	**106**	90	110				
Chromium	0.0606	0.010	0.06	0	**101**	90	110				
Cobalt	0.0613	0.010	0.06	0	**102**	90	110				
Lead	0.0600	0.010	0.06	0	**100**	90	110				
Molybdenum	0.0604	0.0050	0.06	0	**101**	90	110				
Selenium	0.0614	0.0050	0.06	0	**102**	90	110				
Silver	0.0313	0.0050	0.03	0	**104**	90	110				
Uranium	0.0610	0.0010	0.06	0	**102**	90	110				

Associated samples: **H15030394-026A, H15030394-028A, H15030394-029A, H15030394-031A, H15030394-032A, H15030394-034A, H15030394-035A, H15030394-037A, H15030394-038A, H15030394-040A, H15030394-041A, H15030394-043A, H15030394-044A, H15030394-046A, H15030394-049A, H15030394-050A, H15030394-052A, H15030394-053A, H15030394-055A, H15030394-056A, H15030394-058A, H15030394-059A, H15030394-061A, H15030394-062A, H15030394-064A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105627

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150421B: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **04/21/15 12:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.10	0.10	4	0	102	90	110				
Beryllium	0.401	0.0010	0.4	0	100	90	110				
Boron	0.808	0.10	0.8	0	101	90	110				
Copper	0.807	0.010	0.8	0	101	90	110				
Iron	3.98	0.020	4	0	99	90	110				
Manganese	4.00	0.010	4	0	100	90	110				
Nickel	0.816	0.010	0.8	0	102	90	110				
Vanadium	0.797	0.10	0.8	0	100	90	110				
Zinc	0.802	0.010	0.8	0	100	90	110				

Associated samples: **H15030394-027A, H15030394-030A, H15030394-033A, H15030394-036A, H15030394-039A, H15030394-042A, H15030394-045A, H15030394-047A, H15030394-048A, H15030394-051A, H15030394-054A, H15030394-057A, H15030394-060A, H15030394-063A**

Run ID :Run Order: **ICP2-HE_150421B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **04/21/15 13:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	537	0.10	500	0	107	80	120				
Beryllium	0.000170	0.0010		0		0	0				
Boron	0.00238	0.10		0		0	0				
Copper	-0.00233	0.010		0		0	0				
Iron	184	0.020	200	0	92	80	120				
Manganese	-0.0104	0.010		0		0	0				
Nickel	0.00539	0.010		0		0	0				
Vanadium	-0.000860	0.10		0		0	0				
Zinc	0.00188	0.010		0		0	0				

Associated samples: **H15030394-027A, H15030394-030A, H15030394-033A, H15030394-036A, H15030394-039A, H15030394-042A, H15030394-045A, H15030394-047A, H15030394-048A, H15030394-051A, H15030394-054A, H15030394-057A, H15030394-060A, H15030394-063A**

Run ID :Run Order: **ICP2-HE_150421B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **04/21/15 13:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	536	0.10	500	0	107	80	120				
Beryllium	0.493	0.0010	0.5	0	99	80	120				
Boron	0.973	0.10	1	0	97	80	120				
Copper	0.501	0.010	0.5	0	100	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105627

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150421B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **04/21/15 13:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	183	0.020	200	0	92	80	120				
Manganese	0.463	0.010	0.5	0	93	80	120				
Nickel	0.922	0.010	1	0	92	80	120				
Vanadium	0.479	0.10	0.5	0	96	80	120				
Zinc	0.980	0.010	1	0	98	80	120				

Associated samples: **H15030394-027A, H15030394-030A, H15030394-033A, H15030394-036A, H15030394-039A, H15030394-042A, H15030394-045A, H15030394-047A, H15030394-048A, H15030394-051A, H15030394-054A, H15030394-057A, H15030394-060A, H15030394-063A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105653

Date: *27-Apr-15*

Run ID :Run Order: **SOIL DRYING OVEN 2_150421A: 2** SampType: **Sample Duplicate** Lab ID: **H15030394-017ADUP** Method: **D2974**

Analysis Date: **04/22/15 15:04** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	61.3	0.20		0				65.87	7.3	20	

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A, H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A, H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Run ID :Run Order: **SOIL DRYING OVEN 2_150421A: 1** SampType: **Sample Duplicate** Lab ID: **H15030394-027ADUP** Method: **D2974**

Analysis Date: **04/22/15 15:04** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	41.1	0.20		0				42.35	3.1	20	

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A, H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A, H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Run ID :Run Order: **SOIL DRYING OVEN 2_150421A: 2** SampType: **Sample Duplicate** Lab ID: **H15030394-033ADUP** Method: **D2974**

Analysis Date: **04/22/15 15:04** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	45.5	0.20		0				40.84	11	20	

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A, H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A, H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Run ID :Run Order: **SOIL DRYING OVEN 2_150421A: 3** SampType: **Sample Duplicate** Lab ID: **H15030394-043ADUP** Method: **D2974**

Analysis Date: **04/22/15 15:04** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	15.8	0.20		0				15.25	3.5	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105653

Date: *27-Apr-15*

Run ID :Run Order: **SOIL DRYING OVEN 2_150421A: 3** SampType: **Sample Duplicate** Lab ID: **H15030394-043ADUP** Method: **D2974**

Analysis Date: **04/22/15 15:04** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A, H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A, H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Run ID :Run Order: **SOIL DRYING OVEN 2_150421A: 4** SampType: **Sample Duplicate** Lab ID: **H15030394-053ADUP** Method: **D2974**

Analysis Date: **04/22/15 15:04** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	72.0	0.20		0				78.07	8.1	20	

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A, H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A, H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Run ID :Run Order: **SOIL DRYING OVEN 2_150421A: 5** SampType: **Sample Duplicate** Lab ID: **H15030394-063ADUP** Method: **D2974**

Analysis Date: **04/22/15 15:04** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	19.9	0.20		0				19.22	3.6	20	

Associated samples: **H15030394-017A, H15030394-018A, H15030394-019A, H15030394-020A, H15030394-021A, H15030394-022A, H15030394-023A, H15030394-024A, H15030394-025A, H15030394-026A, H15030394-027A, H15030394-028A, H15030394-029A, H15030394-030A, H15030394-031A, H15030394-032A, H15030394-033A, H15030394-034A, H15030394-035A, H15030394-036A, H15030394-037A, H15030394-038A, H15030394-039A, H15030394-040A, H15030394-041A, H15030394-042A, H15030394-043A, H15030394-044A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-050A, H15030394-051A, H15030394-052A, H15030394-053A, H15030394-054A, H15030394-055A, H15030394-056A, H15030394-057A, H15030394-058A, H15030394-059A, H15030394-060A, H15030394-061A, H15030394-062A, H15030394-063A, H15030394-064A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105659

Date: *27-Apr-15*

Run ID :Run Order: **ICP2-HE_150422C: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **04/22/15 13:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.782	0.10	0.8	0	98	90	110				
Copper	0.797	0.010	0.8	0	100	90	110				

Associated samples: **H15030394-019A, H15030394-025A**

Run ID :Run Order: **ICP2-HE_150422C: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **04/22/15 13:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	-0.000840	0.10		0		0	0				
Copper	-0.000760	0.010		0		0	0				

Associated samples: **H15030394-019A, H15030394-025A**

Run ID :Run Order: **ICP2-HE_150422C: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **04/22/15 13:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.955	0.10	1	0	95	80	120				
Copper	0.504	0.010	0.5	0	101	80	120				

Associated samples: **H15030394-019A, H15030394-025A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R105681

Date: *27-Apr-15*

Run ID :Run Order: **ICPMS204-B_150422A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **04/22/15 10:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0617	0.0010	0.06	0	**103**	90	110				
Arsenic	0.0621	0.0010	0.06	0	**104**	90	110				
Barium	0.0601	0.0010	0.06	0	**100**	90	110				
Cadmium	0.0315	0.0010	0.03	0	**105**	90	110				
Chromium	0.0620	0.0010	0.06	0	**103**	90	110				
Cobalt	0.0624	0.0010	0.06	0	**104**	90	110				
Lead	0.0606	0.0010	0.06	0	**101**	90	110				
Molybdenum	0.0599	0.0010	0.06	0	**100**	90	110				
Selenium	0.0618	0.0010	0.06	0	**103**	90	110				
Silver	0.0309	0.0010	0.03	0	**103**	90	110				
Uranium	0.0605	0.00030	0.06	0	**101**	90	110				

Associated samples: **H15030394-027A, H15030394-030A, H15030394-031A, H15030394-033A, H15030394-034A, H15030394-036A, H15030394-037A, H15030394-039A, H15030394-040A, H15030394-042A, H15030394-043A, H15030394-045A, H15030394-046A, H15030394-047A, H15030394-048A, H15030394-049A, H15030394-051A, H15030394-052A, H15030394-054A, H15030394-055A, H15030394-057A, H15030394-058A, H15030394-060A, H15030394-063A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: TSS150330A

Date: *27-Apr-15*

Run ID :Run Order: **ACCU-124 (14410200)_150330A: 1** SampType: **Method Blank** Lab ID: **MB-1_150330A** Method: **A2540 D**

Analysis Date: **03/30/15 15:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	0.1									

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A**

Run ID :Run Order: **ACCU-124 (14410200)_150330A: 2** SampType: **Laboratory Control Sample** Lab ID: **LCS-2_150330A** Method: **A2540 D**

Analysis Date: **03/30/15 15:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	93.0	10	100	0	**93**	80	120				

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A**

Run ID :Run Order: **ACCU-124 (14410200)_150330A: 4** SampType: **Sample Duplicate** Lab ID: **H15030389-001ADUP** Method: **A2540 D**

Analysis Date: **03/30/15 15:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	9.00	10		0				9		5	

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A**

Run ID :Run Order: **ACCU-124 (14410200)_150330A: 1** SampType: **Sample Duplicate** Lab ID: **H15030393-004ADUP** Method: **A2540 D**

Analysis Date: **03/30/15 15:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	9.40	10		0				8.4		5	

Associated samples: **H15030394-001A, H15030394-002A, H15030394-003A, H15030394-004A, H15030394-005A, H15030394-006A, H15030394-007A, H15030394-008A, H15030394-009A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15030394
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: TSS150331A

Date: *27-Apr-15*

Run ID :Run Order: **ACCU-124 (14410200)_150331A: 1** SampType: **Method Blank** Lab ID: **MB-1_150331A** Method: **A2540 D**

Analysis Date: **03/31/15 15:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	0.1									

Associated samples: **H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **ACCU-124 (14410200)_150331A: 2** SampType: **Laboratory Control Sample** Lab ID: **LCS-2_150331A** Method: **A2540 D**

Analysis Date: **03/31/15 15:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	91.0	10	100	0	**91**	80	120				

Associated samples: **H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **ACCU-124 (14410200)_150331A: 4** SampType: **Sample Duplicate** Lab ID: **H15030394-011ADUP** Method: **A2540 D**

Analysis Date: **03/31/15 15:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	13.0	10		0				12.4	**4.7**	5	

Associated samples: **H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Run ID :Run Order: **ACCU-124 (14410200)_150331A: 1** SampType: **Sample Duplicate** Lab ID: **H15030412-001ADUP** Method: **A2540 D**

Analysis Date: **03/31/15 15:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	86.7	33		0				83.33	**3.9**	5	

Associated samples: **H15030394-010A, H15030394-011A, H15030394-012A, H15030394-013A, H15030394-014A, H15030394-015A, H15030394-016A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Work Order Receipt Checklist

MT DEQ-Federal Superfund

H15030394

Login completed by: Amanda B. Blackburn

Date Received: 3/30/2015

Reviewed by: BL2000\rwilliams

Received by: AHN

Reviewed Date: 4/1/2015

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	°C See Comments		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

Cooler 1 was received at 4.4°C, Cooler 2 at 3.0°C, Cooler 3 at 0.6°C, Cooler 4 at 5.2°C all on ice. Temperature was taken using the Temp Blank. Sediment samples were received in a box at 19.0°C, no ice. Temperature was taken using a client sample. abb 3/30/15

APPENDIX B2

ANALYTICAL LABORATORY RESULTS
2ND QUARTER MONITORING

ANALYTICAL SUMMARY REPORT

June 09, 2015

Natural Resource Damage Program
1301 E Lockey
Helena, MT 59620-1425

Work Order: H15050234 Quote ID: H1088 - Silver Bow Monitoring

Project Name: Silver Bow Creek Monitoring

Energy Laboratories Inc Helena MT received the following 12 samples for Natural Resource Damage Program on 5/18/2015 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H15050234-001	SS-01	05/15/15 17:30	05/18/15	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Carbon, Dissolved Organic Conductivity Mercury, Dissolved Mercury, Total Recoverable Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Nitrogen, Total Persulfate Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Digestion, Total P Water Nitrogen, Total Persulfate Phosphorus, Total Solids, Total Suspended Solids, Suspended Volatile
H15050234-002	SS-05A	05/15/15 16:30	05/18/15	Aqueous	Same As Above
H15050234-003	SS-15G	05/14/15 13:30	05/18/15	Aqueous	Same As Above
H15050234-004	SS-01 Sediment Sieve <0.065mm	05/15/15 17:30	05/18/15	Sediment	Metals by ICP/ICPMS, Total Mercury in Solid By CVAA Percent Moisture Digestion, Total Metals Digestion, Mercury by CVAA Sieves Soil Preparation
H15050234-005	SS-01 Sediment Sieve 0.065-1mm	05/15/15 17:30	05/18/15	Sediment	Metals by ICP/ICPMS, Total Mercury in Solid By CVAA Percent Moisture Digestion, Total Metals Digestion, Mercury by CVAA Sieves
H15050234-006	SS-01 Sediment Sieve 1-2mm	05/15/15 17:30	05/18/15	Sediment	Same As Above
H15050234-007	SS-05A Sediment Sieve <0.065mm	05/15/15 16:30	05/18/15	Sediment	Same As Above
H15050234-008	SS-05A Sediment Sieve 0.065-1mm	05/15/15 16:30	05/18/15	Sediment	Same As Above
H15050234-009	SS-05A Sediment Sieve 1-2mm	05/15/15 16:30	05/18/15	Sediment	Same As Above

ANALYTICAL SUMMARY REPORT

H15050234-010	SS-15G Sediment Sieve <0.065mm	05/14/15 13:30	05/18/15	Sediment	Same As Above
H15050234-011	SS-15G Sediment Sieve 0.065-1mm	05/14/15 13:30	05/18/15	Sediment	Same As Above
H15050234-012	SS-15G Sediment Sieve 1-2mm	05/14/15 13:30	05/18/15	Sediment	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Natural Resource Damage Program
Project: Silver Bow Creek Monitoring
Work Order: H15050234

Report Date: 06/09/15

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

Uranium is not present in the LCS standard for Preparation Batch 29120, 29121 and 29122. All batch QC (MB, LFB, PDS, MS/MSD) for Uranium was within method acceptable limits. These batches were approved. abb 6/9/15

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01
Lab ID: H15050234-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 17:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	6	mg/L	D	2		A2540 D	05/18/15 14:33 / SR		-124 (14410200)_150518A	3	TSS150518A
Solids, Volatile Suspended	3	mg/L		1		A2540 E	05/19/15 09:52 / SR		MISC WC_150519A	2	150519A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	74	mg/L		4		A2320 B	05/19/15 12:17 / SR		PHSC_101-H_150519A	66	R106225
Bicarbonate as HCO3	89	mg/L		4		A2320 B	05/19/15 12:17 / SR		PHSC_101-H_150519A	66	R106225
Chloride	8	mg/L		1		E300.0	05/20/15 03:06 / SR		IC102-H_150519A	76	R106272
Sulfate	15	mg/L		1		E300.0	05/20/15 03:06 / SR		IC102-H_150519A	76	R106272
Hardness as CaCO3	87	mg/L		1		A2340 B	05/19/15 10:00 / abb		CALC_150521B	47	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	5.8	mg/L		0.5		A5310 C	05/23/15 00:51 / eli-c		SUB-C199713	26	C_R199713
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/19/15 15:10 / cm		FIA203-HE_150519C	108	R106261
Nitrogen, Nitrate+Nitrite as N	0.30	mg/L		0.02		E353.2	05/19/15 09:58 / cm		FIA203-HE_150519A	17	R106232
Nitrogen, Total	0.55	mg/L		0.05		A4500 N-C	05/20/15 09:27 / cm	05/19/15 09:52	FIA203-HE_150520A	13	28989
Phosphorus, Total as P	0.077	mg/L		0.003		E365.1	05/19/15 13:07 / cm	05/19/15 09:49	FIA202-HE_150519B	14	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Arsenic	0.004	mg/L		0.001		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Barium	0.032	mg/L		0.003		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 10:00 / sld		ICP2-HE_150519A	15	R106247
Cadmium	ND	mg/L		0.00003		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Calcium	25	mg/L		1		E200.7	05/19/15 10:00 / sld		ICP2-HE_150519A	15	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Copper	0.004	mg/L		0.001		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Iron	0.30	mg/L		0.02		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01
Lab ID: H15050234-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 17:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Magnesium	6	mg/L		1		E200.7	05/19/15 10:00 / sld		ICP2-HE_150519A	15	R106247
Manganese	0.029	mg/L		0.001		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 11:34 / rgk	05/19/15 07:39	HGCV202-H_150520A	26	28978
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Potassium	2	mg/L		1		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Sodium	9	mg/L		1		E200.7	05/19/15 10:00 / sld		ICP2-HE_150519A	15	R106247
Uranium	0.0021	mg/L		0.0002		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
Zinc	ND	mg/L		0.008		E200.8	05/20/15 12:27 / dck		ICPMS204-B_150520A	34	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.169	mg/L		0.009		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Arsenic	0.005	mg/L		0.001		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Barium	0.032	mg/L		0.003		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 14:54 / sld	05/19/15 09:40	ICP2-HE_150520A	63	28985
Cadmium	0.00004	mg/L		0.00003		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Calcium	25	mg/L		1		E200.7	05/20/15 14:54 / sld	05/19/15 09:40	ICP2-HE_150520A	63	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Copper	0.006	mg/L		0.001		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Iron	0.80	mg/L		0.02		E200.7	05/20/15 14:54 / sld	05/19/15 09:40	ICP2-HE_150520A	63	28985
Lead	0.0007	mg/L		0.0003		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Magnesium	6	mg/L		1		E200.7	05/20/15 14:54 / sld	05/19/15 09:40	ICP2-HE_150520A	63	28985
Manganese	0.048	mg/L		0.001		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 11:45 / rgk	05/19/15 07:39	HGCV202-H_150520A	29	28978
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01
Lab ID: H15050234-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 17:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Potassium	2	mg/L		1		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Sodium	10	mg/L		1		E200.7	05/20/15 14:54 / sld	05/19/15 09:40	ICP2-HE_150520A	63	28985
Uranium	0.0023	mg/L		0.0002		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985
Zinc	ND	mg/L		0.008		E200.8	05/20/15 12:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	39	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A
Lab ID: H15050234-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 16:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	11	mg/L		1		A2540 D	05/18/15 14:33 / SR		-124 (14410200)_150518A	5	TSS150518A
Solids, Volatile Suspended	4	mg/L		1		A2540 E	05/19/15 09:52 / SR		MISC WC_150519A	4	150519A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	85	mg/L		4		A2320 B	05/19/15 12:28 / SR		PHSC_101-H_150519A	70	R106225
Bicarbonate as HCO3	100	mg/L		4		A2320 B	05/19/15 12:28 / SR		PHSC_101-H_150519A	70	R106225
Chloride	12	mg/L		1		E300.0	05/20/15 03:17 / SR		IC102-H_150519A	77	R106272
Sulfate	19	mg/L		1		E300.0	05/20/15 03:17 / SR		IC102-H_150519A	77	R106272
Hardness as CaCO3	102	mg/L		1		A2340 B	05/19/15 10:22 / abb		CALC_150521B	58	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	5.2	mg/L		0.5		A5310 C	05/23/15 01:07 / eli-c		SUB-C199713	27	C_R199713
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/19/15 15:11 / cm		FIA203-HE_150519C	109	R106261
Nitrogen, Nitrate+Nitrite as N	0.45	mg/L		0.02		E353.2	05/19/15 09:59 / cm		FIA203-HE_150519A	18	R106232
Nitrogen, Total	0.74	mg/L		0.05		A4500 N-C	05/20/15 09:29 / cm	05/19/15 09:52	FIA203-HE_150520A	14	28989
Phosphorus, Total as P	0.096	mg/L		0.003		E365.1	05/19/15 13:08 / cm	05/19/15 09:49	FIA202-HE_150519B	15	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Arsenic	0.005	mg/L		0.001		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Barium	0.036	mg/L		0.003		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 10:22 / sld		ICP2-HE_150519A	21	R106247
Cadmium	ND	mg/L		0.00003		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Calcium	29	mg/L		1		E200.7	05/19/15 10:22 / sld		ICP2-HE_150519A	21	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Copper	0.003	mg/L		0.001		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Iron	0.25	mg/L		0.02		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A
Lab ID: H15050234-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 16:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Magnesium	7	mg/L		1		E200.7	05/19/15 10:22 / sld		ICP2-HE_150519A	21	R106247
Manganese	0.052	mg/L		0.001		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 11:49 / rgk	05/19/15 07:39	HGCV202-H_150520A	30	28978
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Potassium	3	mg/L		1		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Sodium	12	mg/L		1		E200.7	05/19/15 10:22 / sld		ICP2-HE_150519A	21	R106247
Uranium	0.0028	mg/L		0.0002		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
Zinc	0.011	mg/L		0.008		E200.8	05/20/15 13:02 / dck		ICPMS204-B_150520A	45	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.255	mg/L		0.009		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Arsenic	0.006	mg/L		0.001		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Barium	0.039	mg/L		0.003		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 15:17 / sld	05/19/15 09:40	ICP2-HE_150520A	69	28985
Cadmium	0.00009	mg/L		0.00003		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Calcium	29	mg/L		1		E200.7	05/20/15 15:17 / sld	05/19/15 09:40	ICP2-HE_150520A	69	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Copper	0.009	mg/L		0.001		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Iron	0.84	mg/L		0.02		E200.7	05/20/15 15:17 / sld	05/19/15 09:40	ICP2-HE_150520A	69	28985
Lead	0.0021	mg/L		0.0003		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Magnesium	7	mg/L		1		E200.7	05/20/15 15:17 / sld	05/19/15 09:40	ICP2-HE_150520A	69	28985
Manganese	0.071	mg/L		0.001		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Mercury	5.8E-06	mg/L		5E-06		E245.1	05/20/15 11:53 / rgk	05/19/15 07:39	HGCV202-H_150520A	31	28978
Molybdenum	0.005	mg/L		0.005		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A
Lab ID: H15050234-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 16:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Potassium	3	mg/L		1		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Sodium	12	mg/L		1		E200.7	05/20/15 15:17 / sld	05/19/15 09:40	ICP2-HE_150520A	69	28985
Uranium	0.0031	mg/L		0.0002		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985
Zinc	0.021	mg/L		0.008		E200.8	05/20/15 13:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	46	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G
Lab ID: H15050234-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 13:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	8	mg/L		1		A2540 D	05/18/15 14:34 / SR		-124 (14410200)_150518A	6	TSS150518A
Solids, Volatile Suspended	3	mg/L		1		A2540 E	05/19/15 09:52 / SR		MISC WC_150519A	5	150519A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	73	mg/L		4		A2320 B	05/19/15 12:33 / SR		PHSC_101-H_150519A	72	R106225
Bicarbonate as HCO3	88	mg/L		4		A2320 B	05/19/15 12:33 / SR		PHSC_101-H_150519A	72	R106225
Chloride	ND	mg/L		1		E300.0	05/20/15 03:28 / SR		IC102-H_150519A	78	R106272
Sulfate	21	mg/L		1		E300.0	05/20/15 03:28 / SR		IC102-H_150519A	78	R106272
Hardness as CaCO3	93	mg/L		1		A2340 B	05/19/15 10:26 / abb		CALC_150521B	69	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	5.2	mg/L		0.5		A5310 C	05/23/15 01:22 / eli-c		SUB-C199713	28	C_R199713
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/19/15 15:12 / cm		FIA203-HE_150519C	110	R106261
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.02		E353.2	05/19/15 10:00 / cm		FIA203-HE_150519A	19	R106232
Nitrogen, Total	0.09	mg/L		0.05		A4500 N-C	05/20/15 09:30 / cm	05/19/15 09:52	FIA203-HE_150520A	15	28989
Phosphorus, Total as P	0.025	mg/L		0.003		E365.1	05/19/15 13:09 / cm	05/19/15 09:49	FIA202-HE_150519B	16	28987
METALS, DISSOLVED											
Aluminum	0.019	mg/L		0.009		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Arsenic	0.003	mg/L		0.001		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Barium	0.019	mg/L		0.003		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 10:26 / sld		ICP2-HE_150519A	22	R106247
Cadmium	ND	mg/L		0.00003		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Calcium	30	mg/L		1		E200.7	05/19/15 10:26 / sld		ICP2-HE_150519A	22	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Copper	0.002	mg/L		0.001		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Iron	0.02	mg/L		0.02		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G
Lab ID: H15050234-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 13:30 **DateReceived:** 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Magnesium	5	mg/L		1		E200.7	05/19/15 10:26 / sld		ICP2-HE_150519A	22	R106247
Manganese	0.002	mg/L		0.001		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 11:56 / rgk	05/19/15 07:39	HGCV202-H_150520A	32	28978
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Potassium	1	mg/L		1		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Sodium	3	mg/L		1		E200.7	05/19/15 10:26 / sld		ICP2-HE_150519A	22	R106247
Uranium	0.0004	mg/L		0.0002		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
Zinc	ND	mg/L		0.008		E200.8	05/20/15 13:09 / dck		ICPMS204-B_150520A	47	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.384	mg/L		0.009		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Arsenic	0.003	mg/L		0.001		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Barium	0.020	mg/L		0.003		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 15:21 / sld	05/19/15 09:40	ICP2-HE_150520A	70	28985
Cadmium	ND	mg/L		0.00003		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Calcium	29	mg/L		1		E200.7	05/20/15 15:21 / sld	05/19/15 09:40	ICP2-HE_150520A	70	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Copper	0.003	mg/L		0.001		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Iron	0.24	mg/L		0.02		E200.7	05/20/15 15:21 / sld	05/19/15 09:40	ICP2-HE_150520A	70	28985
Lead	0.0003	mg/L		0.0003		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Magnesium	4	mg/L		1		E200.7	05/20/15 15:21 / sld	05/19/15 09:40	ICP2-HE_150520A	70	28985
Manganese	0.010	mg/L		0.001		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 12:00 / rgk	05/19/15 07:39	HGCV202-H_150520A	33	28978
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G
Lab ID: H15050234-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 13:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Potassium	1	mg/L		1		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Sodium	3	mg/L		1		E200.7	05/20/15 15:21 / sld	05/19/15 09:40	ICP2-HE_150520A	70	28985
Uranium	0.0005	mg/L		0.0002		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985
Zinc	ND	mg/L		0.008		E200.8	05/20/15 13:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	48	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01 Sediment Sieve <0.065mm
Lab ID: H15050234-004
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 17:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	2.6	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	1	R106544
PHYSICAL CHARACTERISTICS											
Moisture	52.8	wt%		0.2		D2974	06/05/15 13:46 / edp		DRYING OVEN 2_150604A	1	R106647
3050 EXTRACTABLE METALS											
Aluminum	21300	mg/kg-dry		7		SW6010B	06/04/15 08:29 / sld	06/01/15 15:55	ICP2-HE_150603B	118	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 22:31 / dck	06/01/15 15:55	ICPMS204-B_150602B	40	29120
Arsenic	33	mg/kg-dry		5		SW6020	06/02/15 22:31 / dck	06/01/15 15:55	ICPMS204-B_150602B	40	29120
Barium	258	mg/kg-dry		5		SW6020	06/02/15 22:31 / dck	06/01/15 15:55	ICPMS204-B_150602B	40	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 22:31 / dck	06/01/15 15:55	ICPMS204-B_150602B	40	29120
Boron	10	mg/kg-dry		5		SW6010B	06/04/15 08:29 / sld	06/01/15 15:55	ICP2-HE_150603B	118	29120
Cadmium	1.8	mg/kg-dry		0.2		SW6010B	06/08/15 20:21 / sld	06/01/15 15:55	ICP2-HE_150608A	102	29120
Chromium	50	mg/kg-dry		5		SW6020	06/02/15 22:31 / dck	06/01/15 15:55	ICPMS204-B_150602B	40	29120
Cobalt	10	mg/kg-dry		5		SW6020	06/02/15 22:31 / dck	06/01/15 15:55	ICPMS204-B_150602B	40	29120
Copper	341	mg/kg-dry		5		SW6010B	06/04/15 08:29 / sld	06/01/15 15:55	ICP2-HE_150603B	118	29120
Iron	32800	mg/kg-dry		9		SW6020	06/02/15 22:31 / dck	06/01/15 15:55	ICPMS204-B_150602B	40	29120
Lead	149	mg/kg-dry		5		SW6020	06/02/15 22:31 / dck	06/01/15 15:55	ICPMS204-B_150602B	40	29120
Manganese	701	mg/kg-dry		5		SW6020	06/02/15 22:31 / dck	06/01/15 15:55	ICPMS204-B_150602B	40	29120
Molybdenum	34	mg/kg-dry		5		SW6020	06/02/15 22:31 / dck	06/01/15 15:55	ICPMS204-B_150602B	40	29120
Nickel	22	mg/kg-dry		5		SW6020	06/02/15 22:31 / dck	06/01/15 15:55	ICPMS204-B_150602B	40	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 22:31 / dck	06/01/15 15:55	ICPMS204-B_150602B	40	29120
Silver	ND	mg/kg-dry		5		SW6020	06/02/15 22:31 / dck	06/01/15 15:55	ICPMS204-B_150602B	40	29120
Uranium	8	mg/kg-dry		5		SW6020	06/02/15 22:31 / dck	06/01/15 15:55	ICPMS204-B_150602B	40	29120
Vanadium	92	mg/kg-dry		1		SW6020	06/02/15 22:31 / dck	06/01/15 15:55	ICPMS204-B_150602B	40	29120
Zinc	457	mg/kg-dry		5		SW6020	06/02/15 22:31 / dck	06/01/15 15:55	ICPMS204-B_150602B	40	29120
METALS, TOTAL											
Mercury	0.14	mg/kg-dry		0.10		SW7471B	05/22/15 14:39 / rgk	05/22/15 07:02	HGCV202-H_150522A	19	29026

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01 Sediment Sieve 0.065-1mm
Lab ID: H15050234-005
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 17:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	53.6	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	2	R106544
PHYSICAL CHARACTERISTICS											
Moisture	25.3	wt%		0.2		D2974	06/05/15 13:46 / edp		DRYING OVEN 2_150604A	3	R106647
3050 EXTRACTABLE METALS											
Aluminum	4770	mg/kg-dry		5		SW6010B	06/04/15 10:38 / sld	06/01/15 16:40	ICP2-HE_150603B	153	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Arsenic	7	mg/kg-dry		5		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Barium	61	mg/kg-dry		5		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 10:38 / sld	06/01/15 16:40	ICP2-HE_150603B	153	29121
Cadmium	0.3	mg/kg-dry		0.2		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Chromium	12	mg/kg-dry		5		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Copper	53	mg/kg-dry		5		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Iron	14000	mg/kg-dry		6		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Lead	23	mg/kg-dry		5		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Manganese	188	mg/kg-dry		5		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Nickel	ND	mg/kg-dry		5		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Vanadium	41	mg/kg-dry		1		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
Zinc	133	mg/kg-dry		5		SW6020	06/03/15 00:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	71	29121
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	05/22/15 14:57 / rgk	05/22/15 07:02	HGCV202-H_150522A	24	29026

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01 Sediment Sieve 1-2mm
Lab ID: H15050234-006
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 17:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	12.8	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	3	R106544
PHYSICAL CHARACTERISTICS											
Moisture	23.3	wt%		0.2		D2974	06/05/15 13:46 / edp		DRYING OVEN 2_150604A	4	R106647
3050 EXTRACTABLE METALS											
Aluminum	3800	mg/kg-dry		5		SW6010B	06/04/15 12:22 / sld	06/01/15 16:43	ICP2-HE_150603B	181	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
Arsenic	6	mg/kg-dry		5		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
Barium	52	mg/kg-dry		5		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 12:22 / sld	06/01/15 16:43	ICP2-HE_150603B	181	29122
Cadmium	ND	mg/kg-dry		0.2		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
Chromium	6	mg/kg-dry		5		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
Copper	31	mg/kg-dry		5		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
Iron	6040	mg/kg-dry		5		SW6010B	06/04/15 12:22 / sld	06/01/15 16:43	ICP2-HE_150603B	181	29122
Lead	10	mg/kg-dry		5		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
Manganese	152	mg/kg-dry		5		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
Nickel	ND	mg/kg-dry		5		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
Vanadium	15	mg/kg-dry		1		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
Zinc	130	mg/kg-dry		5		SW6020	06/03/15 01:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	102	29122
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	05/22/15 14:59 / rgk	05/22/15 07:02	HGCV202-H_150522A	25	29026

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A Sediment Sieve <0.065mm
Lab ID: H15050234-007
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 16:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	3.5	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	4	R106544
PHYSICAL CHARACTERISTICS											
Moisture	55.7	wt%		0.2		D2974	06/05/15 13:46 / edp		DRYING OVEN 2_150604A	5	R106647
3050 EXTRACTABLE METALS											
Aluminum	23200	mg/kg-dry		7		SW6010B	06/04/15 08:33 / sld	06/01/15 16:37	ICP2-HE_150603B	119	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 22:34 / dck	06/01/15 16:37	ICPMS204-B_150602B	41	29120
Arsenic	298	mg/kg-dry		5		SW6020	06/02/15 22:34 / dck	06/01/15 16:37	ICPMS204-B_150602B	41	29120
Barium	334	mg/kg-dry		5		SW6020	06/02/15 22:34 / dck	06/01/15 16:37	ICPMS204-B_150602B	41	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 22:34 / dck	06/01/15 16:37	ICPMS204-B_150602B	41	29120
Boron	11	mg/kg-dry		5		SW6010B	06/06/15 00:10 / sld	06/01/15 16:37	ICP2-HE_150605B	114	29120
Cadmium	15.1	mg/kg-dry		0.2		SW6010B	06/04/15 08:33 / sld	06/01/15 16:37	ICP2-HE_150603B	119	29120
Chromium	58	mg/kg-dry		5		SW6020	06/02/15 22:34 / dck	06/01/15 16:37	ICPMS204-B_150602B	41	29120
Cobalt	13	mg/kg-dry		5		SW6020	06/02/15 22:34 / dck	06/01/15 16:37	ICPMS204-B_150602B	41	29120
Copper	2630	mg/kg-dry		5		SW6010B	06/04/15 08:33 / sld	06/01/15 16:37	ICP2-HE_150603B	119	29120
Iron	45200	mg/kg-dry		10		SW6020	06/02/15 22:34 / dck	06/01/15 16:37	ICPMS204-B_150602B	41	29120
Lead	752	mg/kg-dry		7		SW6010B	06/06/15 00:10 / sld	06/01/15 16:37	ICP2-HE_150605B	114	29120
Manganese	1940	mg/kg-dry		5		SW6020	06/02/15 22:34 / dck	06/01/15 16:37	ICPMS204-B_150602B	41	29120
Molybdenum	24	mg/kg-dry		5		SW6020	06/02/15 22:34 / dck	06/01/15 16:37	ICPMS204-B_150602B	41	29120
Nickel	22	mg/kg-dry		5		SW6020	06/02/15 22:34 / dck	06/01/15 16:37	ICPMS204-B_150602B	41	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 22:34 / dck	06/01/15 16:37	ICPMS204-B_150602B	41	29120
Silver	9	mg/kg-dry		5		SW6020	06/02/15 22:34 / dck	06/01/15 16:37	ICPMS204-B_150602B	41	29120
Uranium	11	mg/kg-dry		5		SW6020	06/02/15 22:34 / dck	06/01/15 16:37	ICPMS204-B_150602B	41	29120
Vanadium	92	mg/kg-dry		1		SW6020	06/02/15 22:34 / dck	06/01/15 16:37	ICPMS204-B_150602B	41	29120
Zinc	3100	mg/kg-dry		5		SW6020	06/02/15 22:34 / dck	06/01/15 16:37	ICPMS204-B_150602B	41	29120
METALS, TOTAL											
Mercury	1.4	mg/kg-dry		0.10		SW7471B	05/22/15 15:21 / rgk	05/22/15 07:02	HGCV202-H_150522A	32	29026

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A Sediment Sieve 0.065-1mm
Lab ID: H15050234-008
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 16:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	38.1	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	5	R106544
PHYSICAL CHARACTERISTICS											
Moisture	20.5	wt%		0.2		D2974	06/05/15 13:46 / edp		DRYING OVEN 2_150604A	6	R106647
3050 EXTRACTABLE METALS											
Aluminum	4530	mg/kg-dry		5		SW6010B	06/04/15 10:42 / sld	06/01/15 16:40	ICP2-HE_150603B	154	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
Arsenic	116	mg/kg-dry		5		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
Barium	59	mg/kg-dry		5		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 10:42 / sld	06/01/15 16:40	ICP2-HE_150603B	154	29121
Cadmium	2.9	mg/kg-dry		0.2		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
Chromium	34	mg/kg-dry		5		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
Cobalt	17	mg/kg-dry		5		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
Copper	857	mg/kg-dry		5		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
Iron	92600	mg/kg-dry	D	8		SW6010B	06/06/15 00:40 / sld	06/01/15 16:40	ICP2-HE_150605B	122	29121
Lead	166	mg/kg-dry		5		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
Manganese	793	mg/kg-dry		5		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
Nickel	13	mg/kg-dry		5		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
Vanadium	118	mg/kg-dry		1		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
Zinc	1420	mg/kg-dry		5		SW6020	06/03/15 00:11 / dck	06/01/15 16:40	ICPMS204-B_150602B	72	29121
METALS, TOTAL											
Mercury	0.17	mg/kg-dry		0.10		SW7471B	05/22/15 15:07 / rgk	05/22/15 07:02	HGCV202-H_150522A	27	29026

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A Sediment Sieve 1-2mm
Lab ID: H15050234-009
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 16:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	18.3	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	6	R106544
PHYSICAL CHARACTERISTICS											
Moisture	19.4	wt%		0.2		D2974	06/05/15 13:46 / edp		DRYING OVEN 2_150604A	7	R106647
3050 EXTRACTABLE METALS											
Aluminum	4290	mg/kg-dry		5		SW6010B	06/04/15 12:25 / sld	06/01/15 16:43	ICP2-HE_150603B	182	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Arsenic	135	mg/kg-dry		5		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Barium	67	mg/kg-dry		5		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 12:25 / sld	06/01/15 16:43	ICP2-HE_150603B	182	29122
Cadmium	1.7	mg/kg-dry		0.2		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Chromium	9	mg/kg-dry		5		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Copper	360	mg/kg-dry		5		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Iron	14100	mg/kg-dry		6		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Lead	90	mg/kg-dry		5		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Manganese	366	mg/kg-dry		5		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Nickel	ND	mg/kg-dry		5		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Vanadium	22	mg/kg-dry		1		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
Zinc	875	mg/kg-dry		5		SW6020	06/03/15 01:49 / dck	06/01/15 16:43	ICPMS204-B_150602B	103	29122
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	05/22/15 15:10 / rgk	05/22/15 07:02	HGCV202-H_150522A	28	29026

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G Sediment Sieve <0.065mm
Lab ID: H15050234-010
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 13:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	3.1	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	7	R106544
PHYSICAL CHARACTERISTICS											
Moisture	55.7	wt%		0.2		D2974	06/05/15 13:46 / edp		DRYING OVEN 2_150604A	8	R106647
3050 EXTRACTABLE METALS											
Aluminum	26900	mg/kg-dry		8		SW6010B	06/04/15 08:36 / sld	06/01/15 16:37	ICP2-HE_150603B	120	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
Arsenic	47	mg/kg-dry		5		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
Barium	272	mg/kg-dry		5		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
Boron	9	mg/kg-dry		5		SW6010B	06/04/15 08:36 / sld	06/01/15 16:37	ICP2-HE_150603B	120	29120
Cadmium	1.2	mg/kg-dry		0.4		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
Chromium	50	mg/kg-dry		5		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
Cobalt	9	mg/kg-dry		5		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
Copper	104	mg/kg-dry		5		SW6010B	06/04/15 08:36 / sld	06/01/15 16:37	ICP2-HE_150603B	120	29120
Iron	23400	mg/kg-dry		10		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
Lead	67	mg/kg-dry		5		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
Manganese	572	mg/kg-dry		5		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
Molybdenum	ND	mg/kg-dry		5		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
Nickel	27	mg/kg-dry		5		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
Silver	ND	mg/kg-dry		5		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
Uranium	ND	mg/kg-dry		5		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
Vanadium	52	mg/kg-dry		1		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
Zinc	144	mg/kg-dry		5		SW6020	06/02/15 22:37 / dck	06/01/15 16:37	ICPMS204-B_150602B	42	29120
METALS, TOTAL											
Mercury	0.19	mg/kg-dry		0.10		SW7471B	05/22/15 15:12 / rgk	05/22/15 07:02	HGCV202-H_150522A	29	29026

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G Sediment Sieve 0.065-1mm
Lab ID: H15050234-011
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 13:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	91.2	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	8	R106544
PHYSICAL CHARACTERISTICS											
Moisture	24.0	wt%		0.2		D2974	06/05/15 13:46 / edp		DRYING OVEN 2_150604A	9	R106647
3050 EXTRACTABLE METALS											
Aluminum	14100	mg/kg-dry		5		SW6010B	06/04/15 10:46 / sld	06/01/15 16:40	ICP2-HE_150603B	155	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Arsenic	25	mg/kg-dry		5		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Barium	275	mg/kg-dry		5		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 10:46 / sld	06/01/15 16:40	ICP2-HE_150603B	155	29121
Cadmium	ND	mg/kg-dry		0.2		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Chromium	20	mg/kg-dry		5		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Cobalt	8	mg/kg-dry		5		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Copper	41	mg/kg-dry		5		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Iron	19800	mg/kg-dry		7		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Lead	14	mg/kg-dry		5		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Manganese	273	mg/kg-dry		5		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Nickel	13	mg/kg-dry		5		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Vanadium	43	mg/kg-dry		1		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
Zinc	64	mg/kg-dry		5		SW6020	06/03/15 00:14 / dck	06/01/15 16:40	ICPMS204-B_150602B	73	29121
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	05/22/15 15:15 / rgk	05/22/15 07:02	HGCV202-H_150522A	30	29026

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G Sediment Sieve 1-2mm
Lab ID: H15050234-012
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 13:30
DateReceived: 05/18/15
Report Date: 06/09/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	3.2	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	9	R106544
PHYSICAL CHARACTERISTICS											
Moisture	38.7	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	10	R106647
3050 EXTRACTABLE METALS											
Aluminum	12600	mg/kg-dry		5		SW6010B	06/04/15 12:36 / sld	06/01/15 16:43	ICP2-HE_150603B	185	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Arsenic	124	mg/kg-dry		5		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Barium	314	mg/kg-dry		5		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 12:36 / sld	06/01/15 16:43	ICP2-HE_150603B	185	29122
Cadmium	0.3	mg/kg-dry		0.3		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Chromium	18	mg/kg-dry		5		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Cobalt	9	mg/kg-dry		5		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Copper	55	mg/kg-dry		5		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Iron	20200	mg/kg-dry		8		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Lead	14	mg/kg-dry		5		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Manganese	324	mg/kg-dry		5		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Nickel	14	mg/kg-dry		5		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Vanadium	42	mg/kg-dry		1		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
Zinc	121	mg/kg-dry		5		SW6020	06/03/15 01:52 / dck	06/01/15 16:43	ICPMS204-B_150602B	104	29122
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	05/22/15 15:18 / rgk	05/22/15 07:02	HGCV202-H_150522A	31	29026

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150519A-SLDS-VSS-W

Date: *09-Jun-15*

Run ID :Run Order: **MISC WC_150519A: 1** SampType: **Method Blank** Lab ID: **MBLK1_150519A** Method: **A2540 E**

Analysis Date: **05/19/15 09:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	ND	1									

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Run ID :Run Order: **MISC WC_150519A: 3** SampType: **Sample Duplicate** Lab ID: **H15050234-001ADUP** Method: **A2540 E**

Analysis Date: **05/19/15 09:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	4	10		0				3.4		30	

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150520WA

Date: *09-Jun-15*

Run ID :Run Order: **HGCV202-H_150520A: 21** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **05/20/15 11:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00021	0.00010	0.0002	0	**105**	90	110				

Associated samples: **H15050234-001B, H15050234-001C, H15050234-002B, H15050234-002C, H15050234-003B, H15050234-003C**

Run ID :Run Order: **HGCV202-H_150520A: 22** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1** Method: **E245.1**

Analysis Date: **05/20/15 11:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002	0	**100**	95	105				

Associated samples: **H15050234-001B, H15050234-001C, H15050234-002B, H15050234-002C, H15050234-003B, H15050234-003C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150522ASA

Date: *09-Jun-15*

Run ID :Run Order: **HGCV202-H_150522A: 13** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **05/22/15 14:21** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0011	0.50	0.001	0	**108**	90	110				

Associated samples: **H15050234-004A, H15050234-005A, H15050234-006A, H15050234-007A, H15050234-008A, H15050234-009A, H15050234-010A, H15050234-011A, H15050234-012A**

Run ID :Run Order: **HGCV202-H_150522A: 14** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **05/22/15 14:24** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0026	0.50	0.0025	0	**105**	90	110				

Associated samples: **H15050234-004A, H15050234-005A, H15050234-006A, H15050234-007A, H15050234-008A, H15050234-009A, H15050234-010A, H15050234-011A, H15050234-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28978

Date: *09-Jun-15*

Run ID :Run Order: **HGCV202-H_150520A: 24** SampType: **Method Blank** Lab ID: **MB-28978** Method: **E245.1**
Analysis Date: **05/20/15 11:26** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	1E-06									

Associated samples: **H15050234-001B, H15050234-001C, H15050234-002B, H15050234-002C, H15050234-003B, H15050234-003C**

Run ID :Run Order: **HGCV202-H_150520A: 25** SampType: **Laboratory Control Sample** Lab ID: **LCS-28978** Method: **E245.1**
Analysis Date: **05/20/15 11:30** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00015	0.00010	0.00015	0	99	90	110				

Associated samples: **H15050234-001B, H15050234-001C, H15050234-002B, H15050234-002C, H15050234-003B, H15050234-003C**

Run ID :Run Order: **HGCV202-H_150520A: 27** SampType: **Sample Matrix Spike** Lab ID: **H15050234-001BMS** Method: **E245.1**
Analysis Date: **05/20/15 11:37** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00014	0.00010	0.00015	0	94	70	130				

Associated samples: **H15050234-001B, H15050234-001C, H15050234-002B, H15050234-002C, H15050234-003B, H15050234-003C**

Run ID :Run Order: **HGCV202-H_150520A: 28** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050234-001BMSD** Method: **E245.1**
Analysis Date: **05/20/15 11:41** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00014	0.00010	0.00015	0	94	70	130	0.0001409	0.1	20	

Associated samples: **H15050234-001B, H15050234-001C, H15050234-002B, H15050234-002C, H15050234-003B, H15050234-003C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28985

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150520A: 61** SampType: **Method Blank** Lab ID: **MB-28985** Method: **E200.7**
Analysis Date: **05/20/15 14:47** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.003									
Calcium	0.03	0.03									
Iron	ND	0.006									
Magnesium	0.008	0.005									
Sodium	ND	0.02									

Associated samples: **H15050234-001C, H15050234-002C, H15050234-003C**

Run ID :Run Order: **ICP2-HE_150520A: 62** SampType: **Laboratory Control Sample** Lab ID: **LCS-28985** Method: **E200.7**
Analysis Date: **05/20/15 14:51** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.500	0.050	0.5	0	100	85	115				
Calcium	25.9	1.0	25	0.03121	103	85	115				
Iron	2.56	0.020	2.5	0	103	85	115				
Magnesium	25.9	1.0	25	0.00849	103	85	115				
Sodium	27.1	1.0	25	0	108	85	115				

Associated samples: **H15050234-001C, H15050234-002C, H15050234-003C**

Run ID :Run Order: **ICP2-HE_150520A: 64** SampType: **Serial Dilution** Lab ID: **H15050234-001CDIL** Method: **E200.7**
Analysis Date: **05/20/15 14:58** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.050		0		0	0	0.00975		10	
Calcium	23.5	1.0		0		0	0	25.05	6.6	10	
Iron	0.766	0.027		0		0	0	0.7965	4.0	10	
Magnesium	5.66	1.0		0		0	0	6.109	7.6	10	
Sodium	8.80	1.0		0		0	0	9.534	8.0	10	

Associated samples: **H15050234-001C, H15050234-002C, H15050234-003C**

Run ID :Run Order: **ICP2-HE_150520A: 65** SampType: **Sample Matrix Spike** Lab ID: **H15050234-001CMS3** Method: **E200.7**
Analysis Date: **05/20/15 15:02** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.535	0.050	0.5	0.00975	105	70	130				
Calcium	50.5	1.0	25	25.05	102	70	130				
Iron	3.38	0.020	2.5	0.7965	104	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28985

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150520A: 65** SampType: **Sample Matrix Spike** Lab ID: **H15050234-001CMS3** Method: **E200.7**

Analysis Date: **05/20/15 15:02** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	32.2	1.0	25	6.109	104	70	130				
Sodium	36.0	1.0	25	9.534	106	70	130				

Associated samples: **H15050234-001C, H15050234-002C, H15050234-003C**

Run ID :Run Order: **ICP2-HE_150520A: 66** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050234-001CMSD3** Method: **E200.7**

Analysis Date: **05/20/15 15:06** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.516	0.050	0.5	0.00975	101	70	130	0.5353	3.6	20	
Calcium	50.1	1.0	25	25.05	100	70	130	50.52	0.8	20	
Iron	3.35	0.020	2.5	0.7965	102	70	130	3.384	0.9	20	
Magnesium	31.8	1.0	25	6.109	103	70	130	32.21	1.4	20	
Sodium	35.8	1.0	25	9.534	105	70	130	35.96	0.5	20	

Associated samples: **H15050234-001C, H15050234-002C, H15050234-003C**

Run ID :Run Order: **ICP2-HE_150520A: 81** SampType: **Serial Dilution** Lab ID: **H15050235-008CDIL** Method: **E200.7**

Analysis Date: **05/20/15 16:08** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.0547	0.050		0		0	0	0.05093		10	N
Calcium	48.2	1.0		0		0	0	49.3	2.2	10	
Iron	0.633	0.027		0		0	0	0.6394	1.0	10	
Magnesium	10.3	1.0		0		0	0	10.62	3.3	10	
Sodium	28.7	1.0		0		0	0	29.45	2.6	10	

Associated samples: **H15050234-001C, H15050234-002C, H15050234-003C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28985

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 35** SampType: **Method Blank** Lab ID: **MB-28985** Method: **E200.8**

Analysis Date: **05/20/15 12:30** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	ND	6E-05									
Arsenic	7E-05	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	ND	0.002									
Cadmium	ND	1E-05									
Calcium	ND	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	0.0008	0.0002									
Iron	0.008	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	ND	4E-05									
Nickel	ND	3E-05									
Potassium	ND	0.02									
Selenium	ND	7E-05									
Silver	0.0001	5E-05									
Sodium	0.06	0.004									
Uranium	ND	5E-05									
Vanadium	0.0008	0.0001									
Zinc	0.002	0.002									

Associated samples: **H15050234-001C, H15050234-002C, H15050234-003C**

Run ID :Run Order: **ICPMS204-B_150520A: 36** SampType: **Laboratory Control Sample** Lab ID: **LCS-28985** Method: **E200.8**

Analysis Date: **05/20/15 12:33** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.47	0.030	2.5	0	99	85	115				
Antimony	0.519	0.0010	0.5	0	104	85	115				
Arsenic	0.501	0.0010	0.5	0.0000734	100	85	115				
Barium	0.510	0.050	0.5	0	102	85	115				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28985

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 36** SampType: **Laboratory Control Sample** Lab ID: **LCS-28985** Method: **E200.8**

Analysis Date: **05/20/15 12:33** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.244	0.0010	0.25	0	98	85	115				
Boron	0.489	0.050	0.5	0	98	85	115				
Cadmium	0.251	0.0010	0.25	0	100	85	115				
Calcium	26.5	1.0	25	0	106	85	115				
Chromium	0.503	0.0050	0.5	0	101	85	115				
Cobalt	0.498	0.0050	0.5	0	100	85	115				
Copper	0.496	0.0050	0.5	0.0007979	99	85	115				
Iron	2.49	0.020	2.5	0.008002	99	85	115				
Lead	0.509	0.0010	0.5	0	102	85	115				
Magnesium	25.4	1.0	25	0	102	85	115				
Manganese	2.46	0.0010	2.5	0	98	85	115				
Molybdenum	0.515	0.0010	0.5	0	103	85	115				
Nickel	0.494	0.0050	0.5	0	99	85	115				
Potassium	26.0	1.0	25	0	104	85	115				
Selenium	0.493	0.0010	0.5	0	99	85	115				
Silver	0.0488	0.0010	0.05	0.0001034	97	85	115				
Sodium	25.6	1.0	25	0.06255	102	85	115				
Uranium	0.517	0.00030	0.5	0	103	85	115				
Vanadium	0.505	0.010	0.5	0.0008061	101	85	115				
Zinc	0.501	0.010	0.5	0.002294	100	85	115				

Associated samples: **H15050234-001C, H15050234-002C, H15050234-003C**

Run ID :Run Order: **ICPMS204-B_150520A: 40** SampType: **Sample Matrix Spike** Lab ID: **H15050234-001CMS3** Method: **E200.8**

Analysis Date: **05/20/15 12:46** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.72	0.030	2.5	0.1693	102	70	130				
Antimony	0.525	0.0010	0.5	0.0002272	105	70	130				
Arsenic	0.516	0.0010	0.5	0.005048	102	70	130				
Barium	0.551	0.050	0.5	0.03236	104	70	130				
Beryllium	0.252	0.0010	0.25	0	101	70	130				
Boron	0.496	0.050	0.5	0.01619	96	70	130				
Cadmium	0.253	0.0010	0.25	0.0000353	101	70	130				
Calcium	52.4	1.0	25	24.66	111	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28985

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 40** SampType: **Sample Matrix Spike** Lab ID: **H15050234-001CMS3** Method: **E200.8**

Analysis Date: **05/20/15 12:46** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.516	0.0050	0.5	0.0003732	103	70	130				
Cobalt	0.507	0.0050	0.5	0.0001582	101	70	130				
Copper	0.507	0.0050	0.5	0.005951	100	70	130				
Iron	3.39	0.020	2.5	0.7826	104	70	130				
Lead	0.521	0.0010	0.5	0.0007273	104	70	130				
Magnesium	31.7	1.0	25	6.224	102	70	130				
Manganese	2.57	0.0010	2.5	0.04758	101	70	130				
Molybdenum	0.530	0.0010	0.5	0.004659	105	70	130				
Nickel	0.504	0.0050	0.5	0.0003911	101	70	130				
Potassium	28.8	1.0	25	2.426	106	70	130				
Selenium	0.501	0.0010	0.5	0.0001672	100	70	130				
Silver	0.0490	0.0010	0.05	0.0001508	98	70	130				
Sodium	34.6	1.0	25	9.151	102	70	130				
Uranium	0.534	0.00030	0.5	0.002269	106	70	130				
Vanadium	0.517	0.010	0.5	0.003492	103	70	130				
Zinc	0.497	0.010	0.5	0.004864	98	70	130				

Associated samples: **H15050234-001C, H15050234-002C, H15050234-003C**

Run ID :Run Order: **ICPMS204-B_150520A: 41** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050234-001CMSD3** Method: **E200.8**

Analysis Date: **05/20/15 12:49** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.63	0.030	2.5	0.1693	98	70	130	2.722	3.6	20	
Antimony	0.528	0.0010	0.5	0.0002272	105	70	130	0.5253	0.4	20	
Arsenic	0.505	0.0010	0.5	0.005048	100	70	130	0.5164	2.2	20	
Barium	0.552	0.050	0.5	0.03236	104	70	130	0.5507	0.2	20	
Beryllium	0.251	0.0010	0.25	0	100	70	130	0.252	0.4	20	
Boron	0.502	0.050	0.5	0.01619	97	70	130	0.4955	1.2	20	
Cadmium	0.251	0.0010	0.25	0.0000353	100	70	130	0.2531	1.0	20	
Calcium	51.1	1.0	25	24.66	106	70	130	52.42	2.6	20	
Chromium	0.507	0.0050	0.5	0.0003732	101	70	130	0.5162	1.9	20	
Cobalt	0.499	0.0050	0.5	0.0001582	100	70	130	0.5073	1.7	20	
Copper	0.499	0.0050	0.5	0.005951	99	70	130	0.507	1.6	20	
Iron	3.27	0.020	2.5	0.7826	100	70	130	3.39	3.5	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28985

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 41** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050234-001CMSD3** Method: **E200.8**

Analysis Date: **05/20/15 12:49** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.515	0.0010	0.5	0.0007273	**103**	70	130	0.5214	**1.2**	20	
Magnesium	31.5	1.0	25	6.224	**101**	70	130	31.68	**0.6**	20	
Manganese	2.50	0.0010	2.5	0.04758	**98**	70	130	2.572	**2.8**	20	
Molybdenum	0.530	0.0010	0.5	0.004659	**105**	70	130	0.5302	**0.1**	20	
Nickel	0.494	0.0050	0.5	0.0003911	**99**	70	130	0.5037	**1.9**	20	
Potassium	27.9	1.0	25	2.426	**102**	70	130	28.82	**3.2**	20	
Selenium	0.480	0.0010	0.5	0.0001672	**96**	70	130	0.5013	**4.4**	20	
Silver	0.0492	0.0010	0.05	0.0001508	**98**	70	130	0.04902	**0.4**	20	
Sodium	34.4	1.0	25	9.151	**101**	70	130	34.6	**0.6**	20	
Uranium	0.531	0.00030	0.5	0.002269	**106**	70	130	0.534	**0.6**	20	
Vanadium	0.500	0.010	0.5	0.003492	**99**	70	130	0.5169	**3.2**	20	
Zinc	0.497	0.010	0.5	0.004864	**98**	70	130	0.4971	**0.1**	20	

Associated samples: **H15050234-001C, H15050234-002C, H15050234-003C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28987

Date: *09-Jun-15*

Run ID :Run Order: **FIA202-HE_150519B: 12** SampType: **Laboratory Control Sample** Lab ID: **LCS-28987** Method: **E365.1**
Analysis Date: **05/19/15 13:05** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.392	0.010	0.4	0	98	90	110				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA202-HE_150519B: 13** SampType: **Method Blank** Lab ID: **MB-28987** Method: **E365.1**
Analysis Date: **05/19/15 13:06** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	ND	0.001									

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA202-HE_150519B: 19** SampType: **Sample Matrix Spike** Lab ID: **H15050235-002Dms** Method: **E365.1**
Analysis Date: **05/19/15 13:12** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.184	0.010	0.2	0	92	90	110				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA202-HE_150519B: 20** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-002Dmsd** Method: **E365.1**
Analysis Date: **05/19/15 13:13** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.174	0.010	0.2	0	87	90	110	0.1836	5.2	20	S

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28989

Date: *09-Jun-15*

Run ID :Run Order: **FIA203-HE_150520A: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-28989** Method: **A4500 N-C**
Analysis Date: **05/20/15 09:25** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	14.8	0.30	15.2	0	97	90	110				

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Run ID :Run Order: **FIA203-HE_150520A: 12** SampType: **Method Blank** Lab ID: **MB-28989** Method: **A4500 N-C**
Analysis Date: **05/20/15 09:26** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	ND	0.005									

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Run ID :Run Order: **FIA203-HE_150520A: 18** SampType: **Sample Matrix Spike** Lab ID: **H15050235-002Ams** Method: **A4500 N-C**
Analysis Date: **05/20/15 09:33** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.952	0.10	1	0	95	90	110				

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Run ID :Run Order: **FIA203-HE_150520A: 19** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-002Amsd** Method: **A4500 N-C**
Analysis Date: **05/20/15 09:35** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.931	0.10	1	0	93	90	110	0.9518	2.2	20	

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29026

Date: *09-Jun-15*

Run ID :Run Order: **HGCV202-H_150522A: 16** SampType: **Method Blank** Lab ID: **MB-29026** Method: **SW7471B**
Analysis Date: **05/22/15 14:31** Units: **mg/kg** **Prep Info:** Prep Date: **5/22/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.001									

Associated samples: **H15050234-004A, H15050234-005A, H15050234-006A, H15050234-007A, H15050234-008A, H15050234-009A, H15050234-010A, H15050234-011A, H15050234-012A**

Run ID :Run Order: **HGCV202-H_150522A: 17** SampType: **Laboratory Control Sample** Lab ID: **LCS-29026** Method: **SW7471B**
Analysis Date: **05/22/15 14:34** Units: **mg/kg** **Prep Info:** Prep Date: **5/22/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.8	0.50	5	0	96	80	120				

Associated samples: **H15050234-004A, H15050234-005A, H15050234-006A, H15050234-007A, H15050234-008A, H15050234-009A, H15050234-010A, H15050234-011A, H15050234-012A**

Run ID :Run Order: **HGCV202-H_150522A: 18** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29026** Method: **SW7471B**
Analysis Date: **05/22/15 14:36** Units: **mg/kg** **Prep Info:** Prep Date: **5/22/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.1	0.50	1	0	109	80	120				

Associated samples: **H15050234-004A, H15050234-005A, H15050234-006A, H15050234-007A, H15050234-008A, H15050234-009A, H15050234-010A, H15050234-011A, H15050234-012A**

Run ID :Run Order: **HGCV202-H_150522A: 21** SampType: **Sample Matrix Spike** Lab ID: **H15050234-004AMS** Method: **SW7471B**
Analysis Date: **05/22/15 14:48** Units: **mg/kg-dry** **Prep Info:** Prep Date: **5/22/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.1	0.50	2.023	0.135	95	80	120				

Associated samples: **H15050234-004A, H15050234-005A, H15050234-006A, H15050234-007A, H15050234-008A, H15050234-009A, H15050234-010A, H15050234-011A, H15050234-012A**

Run ID :Run Order: **HGCV202-H_150522A: 22** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050234-004AMSD** Method: **SW7471B**
Analysis Date: **05/22/15 14:51** Units: **mg/kg-dry** **Prep Info:** Prep Date: **5/22/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.2	0.50	2.017	0.135	104	80	120	2.057	8.0	20	

Associated samples: **H15050234-004A, H15050234-005A, H15050234-006A, H15050234-007A, H15050234-008A, H15050234-009A, H15050234-010A, H15050234-011A, H15050234-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29120

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150603B: 113** SampType: **Method Blank** Lab ID: **MB-29120** Method: **SW6010B**
Analysis Date: **06/04/15 08:10** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.8	0.3									
Boron	ND	0.10									
Cadmium	0.03	0.01									
Copper	0.3	0.2									
Lead	ND	0.6									

Associated samples: **H15050234-004A, H15050234-007A, H15050234-010A**

Run ID :Run Order: **ICP2-HE_150603B: 114** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29120** Method: **SW6010B**
Analysis Date: **06/04/15 08:14** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	246	5.0	245.7	0.7812	100	80	120				
Boron	47.1	1.0	49.13	0	96	80	120				
Cadmium	23.3	1.0	24.57	0.0338	95	80	120				
Copper	49.0	1.0	49.13	0.2651	99	80	120				
Lead	45.1	1.0	49.13	0	92	80	120				

Associated samples: **H15050234-004A, H15050234-007A, H15050234-010A**

Run ID :Run Order: **ICP2-HE_150603B: 115** SampType: **Laboratory Control Sample** Lab ID: **LCS-29120** Method: **SW6010B**
Analysis Date: **06/04/15 08:18** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	12100	6.6	18600	0.7812	65	0	201.6				
Boron	202	1.0	197	0	103	59.9	140.1				
Cadmium	379	1.0	384	0.0338	99	73.4	126.6				
Copper	104	2.2	107	0.2651	97	74.5	125.2				
Lead	180	6.3	188	0	96	74.5	125.5				

Associated samples: **H15050234-004A, H15050234-007A, H15050234-010A**

Run ID :Run Order: **ICP2-HE_150603B: 138** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15050235-058APDS** Method: **SW6010B**
Analysis Date: **06/04/15 09:43** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	35100	8.7	3263	31680		75	125				A
Boron	580	1.4	652.7	11.74	87	75	125				
Cadmium	289	1.0	326.3	9.917	86	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29120

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150603B: 138** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15050235-058APDS** Method: **SW6010B**

Analysis Date: **06/04/15 09:43** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	1360	2.9	652.7	774.7	89	75	125				
Lead	952	8.3	652.7	401.2	84	75	125				

Associated samples: **H15050234-004A, H15050234-007A, H15050234-010A**

Run ID :Run Order: **ICP2-HE_150603B: 139** SampType: **Sample Matrix Spike** Lab ID: **H15050235-058AMS** Method: **SW6010B**

Analysis Date: **06/04/15 09:46** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	37700	8.7	650.9	31680		75	125				A
Boron	132	1.3	130.2	11.74	92	75	125				
Cadmium	69.5	1.0	65.09	9.917	91	75	125				
Copper	913	2.9	130.2	774.7		75	125				A
Lead	531	8.3	130.2	401.2	99	75	125				

Associated samples: **H15050234-004A, H15050234-007A, H15050234-010A**

Run ID :Run Order: **ICP2-HE_150603B: 149** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-058AMSD** Method: **SW6010B**

Analysis Date: **06/04/15 10:23** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41100	8.6	642.5	31680		75	125	37660	8.8	20	A
Boron	128	1.3	128.5	11.74	91	75	125	132	2.7	20	
Cadmium	68.0	1.0	64.25	9.917	90	75	125	69.47	2.2	20	
Copper	946	2.8	128.5	774.7		75	125	912.6	3.6	20	A
Lead	547	8.2	128.5	401.2	113	75	125	530.5	3.0	20	

Associated samples: **H15050234-004A, H15050234-007A, H15050234-010A**

Run ID :Run Order: **ICP2-HE_150605B: 113** SampType: **Method Blank** Lab ID: **MB-29120** Method: **SW6010B**

Analysis Date: **06/06/15 00:06** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1	0.3									
Boron	0.2	0.10									
Cadmium	0.03	0.01									
Copper	0.6	0.2									
Lead	ND	0.6									

Associated samples: **H15050234-004A, H15050234-007A, H15050234-010A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29120

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150608A: 101** SampType: **Method Blank** Lab ID: **MB-29120** Method: **SW6010B**

Analysis Date: **06/08/15 20:17** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1	0.3									
Boron	ND	0.10									
Cadmium	ND	0.01									
Copper	0.5	0.2									
Lead	1	0.6									

Associated samples: **H15050234-004A, H15050234-007A, H15050234-010A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29120

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 36** SampType: **Method Blank** Lab ID: **MB-29120** Method: **SW6020**

Analysis Date: **06/02/15 22:18** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.1	0.07									
Arsenic	0.1	0.05									
Barium	ND	0.4									
Beryllium	ND	0.1									
Cadmium	ND	0.1									
Chromium	0.05	0.04									
Cobalt	ND	0.03									
Iron	ND	5									
Lead	ND	0.09									
Manganese	ND	0.2									
Molybdenum	ND	0.09									
Nickel	ND	0.1									
Selenium	ND	0.1									
Silver	ND	0.05									
Uranium	ND	0.06									
Vanadium	ND	0.4									
Zinc	2	0.7									

Associated samples: **H15050234-004A, H15050234-007A, H15050234-010A**

Run ID :Run Order: **ICPMS204-B_150602B: 37** SampType: **Laboratory Control Sample** Lab ID: **LCS-29120** Method: **SW6020**

Analysis Date: **06/02/15 22:21** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	80.4	1.0	127	0.1226	**63**	0	251.2				
Arsenic	101	1.0	96.2	0.1067	**105**	69.2	131				
Barium	885	1.0	904	0	**98**	74.8	125				
Beryllium	248	1.0	231	0	**107**	75.8	125.2				
Cadmium	395	1.0	384	0	**103**	73.4	126.6				
Chromium	221	1.0	213	0.04621	**104**	70.9	129.6				
Cobalt	143	1.0	138	0	**104**	73.9	125.4				
Iron	8700	9.4	8260	0	**105**	12.5	187.7				
Lead	194	1.0	188	0	**103**	74.5	125.5				
Manganese	744	1.0	760	0	**98**	78.3	121.7				
Molybdenum	77.6	1.0	77	0	**101**	68.8	131.2				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29120

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 37** SampType: **Laboratory Control Sample** Lab ID: **LCS-29120** Method: **SW6020**

Analysis Date: **06/02/15 22:21** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	255	1.0	241	0	106	74.3	125.7				
Selenium	317	1.0	295	0	108	69.5	130.2				
Silver	28.6	1.0	25.6	0	112	64.5	135.5				
Uranium	1.62	1.0		0		0	0				
Vanadium	112	1.0	110	0	102	67.2	133.6				
Zinc	756	1.4	707	1.962	107	73.8	126.3				

Associated samples: **H15050234-004A, H15050234-007A, H15050234-010A**

Run ID :Run Order: **ICPMS204-B_150602B: 38** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29120** Method: **SW6020**

Analysis Date: **06/02/15 22:24** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	51.9	1.0	49.13	0.1226	105	80	120				
Arsenic	50.3	1.0	49.13	0.1067	102	80	120				
Barium	51.4	1.0	49.13	0	105	80	120				
Beryllium	26.5	1.0	24.57	0	108	80	120				
Cadmium	26.0	1.0	24.57	0	106	80	120				
Chromium	51.2	1.0	49.13	0.04621	104	80	120				
Cobalt	50.9	1.0	49.13	0	104	80	120				
Iron	274	5.0	245.7	0	111	80	120				
Lead	51.2	1.0	49.13	0	104	80	120				
Manganese	255	1.0	245.7	0	104	80	120				
Molybdenum	51.0	1.0	49.13	0	104	80	120				
Nickel	51.5	1.0	49.13	0	105	80	120				
Selenium	50.3	1.0	49.13	0	102	80	120				
Silver	25.6	1.0	24.57	0	104	80	120				
Uranium	49.6	1.0	49.13	0	101	80	120				
Vanadium	49.7	1.0	49.13	0	101	80	120				
Zinc	52.6	1.0	49.13	1.962	103	80	120				

Associated samples: **H15050234-004A, H15050234-007A, H15050234-010A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29120

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 61** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15050235-058APDS** Method: **SW6020**

Analysis Date: **06/02/15 23:36** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	1180	1.0	1267	1.631	93	75	125				
Arsenic	1280	1.0	1267	88.16	94	75	125				
Barium	1520	1.0	1267	361.5	92	75	125				
Beryllium	585	1.0	633.7	1.871	92	75	125				
Cadmium	599	1.0	633.7	9.895	93	75	125				
Chromium	1210	1.0	1267	50.99	92	75	125				
Cobalt	1160	1.0	1267	16.96	90	75	125				
Iron	46300	12	6337	44130		75	125				A
Lead	1530	1.0	1267	426.4	87	75	125				
Manganese	9410	1.0	6337	4222	82	75	125				
Molybdenum	1180	1.0	1267	3.431	93	75	125				
Nickel	1210	1.0	1267	29.95	93	75	125				
Selenium	1090	1.0	1267	1.209	86	75	125				
Silver	465	1.0	633.7	4.962	73	75	125				S
Uranium	1150	1.0	1267	4.228	90	75	125				
Vanadium	1240	1.1	1267	96.52	90	75	125				
Zinc	3280	1.8	1267	2348	74	75	125				S

Associated samples: **H15050234-004A, H15050234-007A, H15050234-010A**

Run ID :Run Order: **ICPMS204-B_150602B: 62** SampType: **Sample Matrix Spike** Lab ID: **H15050235-058AMS** Method: **SW6020**

Analysis Date: **06/02/15 23:39** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	43.7	1.0	130.2	1.631	32	75	125				S
Arsenic	224	1.0	130.2	88.16	104	75	125				
Barium	508	1.0	130.2	361.5	112	75	125				
Beryllium	67.4	1.0	65.09	1.871	101	75	125				
Cadmium	77.6	1.0	65.09	9.895	104	75	125				
Chromium	188	1.0	130.2	50.99	105	75	125				
Cobalt	150	1.0	130.2	16.96	103	75	125				
Iron	47500	12	650.9	44130		75	125				A
Lead	566	1.0	130.2	426.4	107	75	125				
Manganese	4980	1.0	650.9	4222		75	125				A
Molybdenum	133	1.0	130.2	3.431	100	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29120

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 62** SampType: **Sample Matrix Spike** Lab ID: **H15050235-058AMS** Method: **SW6020**

Analysis Date: **06/02/15 23:39** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	165	1.0	130.2	29.95	104	75	125				
Selenium	128	1.0	130.2	1.209	97	75	125				
Silver	71.9	1.0	65.09	4.962	103	75	125				
Uranium	135	1.0	130.2	4.228	101	75	125				
Vanadium	231	1.1	130.2	96.52	104	75	125				
Zinc	2500	1.8	130.2	2348		75	125				A

Associated samples: **H15050234-004A, H15050234-007A, H15050234-010A**

Run ID :Run Order: **ICPMS204-B_150602B: 63** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-058AMSD** Method: **SW6020**

Analysis Date: **06/02/15 23:42** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	41.6	1.0	128.5	1.631	31	75	125	43.74	4.9	20	S
Arsenic	229	1.0	128.5	88.16	110	75	125	223.7	2.5	20	
Barium	572	1.0	128.5	361.5	164	75	125	507.8	12	20	S
Beryllium	67.6	1.0	64.25	1.871	102	75	125	67.4	0.3	20	
Cadmium	76.6	1.0	64.25	9.895	104	75	125	77.63	1.3	20	
Chromium	190	1.0	128.5	50.99	108	75	125	188.1	0.8	20	
Cobalt	151	1.0	128.5	16.96	104	75	125	150.5	0.2	20	
Iron	52000	12	642.5	44130		75	125	47480	9.2	20	A
Lead	562	1.0	128.5	426.4	106	75	125	565.6	0.6	20	
Manganese	5350	1.0	642.5	4222		75	125	4978	7.2	20	A
Molybdenum	133	1.0	128.5	3.431	101	75	125	133	0.1	20	
Nickel	164	1.0	128.5	29.95	104	75	125	164.8	0.4	20	
Selenium	123	1.0	128.5	1.209	95	75	125	128.1	3.8	20	
Silver	71.9	1.0	64.25	4.962	104	75	125	71.93	0.1	20	
Uranium	133	1.0	128.5	4.228	100	75	125	135.3	1.5	20	
Vanadium	239	1.1	128.5	96.52	111	75	125	231.5	3.3	20	
Zinc	2590	1.8	128.5	2348		75	125	2501	3.3	20	A

Associated samples: **H15050234-004A, H15050234-007A, H15050234-010A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29121

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150603B: 150** SampType: **Method Blank** Lab ID: **MB-29121** Method: **SW6010B**
Analysis Date: **06/04/15 10:27** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1	0.3									
Boron	ND	0.1									
Iron	9	0.6									

Associated samples: **H15050234-005A, H15050234-008A, H15050234-011A**

Run ID :Run Order: **ICP2-HE_150603B: 151** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29121** Method: **SW6010B**
Analysis Date: **06/04/15 10:31** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	244	5.0	238.7	1.226	**101**	80	120				
Boron	46.2	1.0	47.74	0	**97**	80	120				
Iron	244	5.0	238.7	9.316	**98**	80	120				

Associated samples: **H15050234-005A, H15050234-008A, H15050234-011A**

Run ID :Run Order: **ICP2-HE_150603B: 152** SampType: **Laboratory Control Sample** Lab ID: **LCS-29121** Method: **SW6010B**
Analysis Date: **06/04/15 10:35** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	13900	6.2	18600	1.226	**75**	0	201.6				
Boron	217	1.0	197	0	**110**	59.9	140.1				
Iron	8390	5.5	8260	9.316	**101**	12.5	187.7				

Associated samples: **H15050234-005A, H15050234-008A, H15050234-011A**

Run ID :Run Order: **ICP2-HE_150603B: 175** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15050235-059APDS** Method: **SW6010B**
Analysis Date: **06/04/15 11:59** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	7520	5.0	1753	5951	**89**	75	125				
Boron	319	1.0	350.6	0	**91**	75	125				
Iron	28100	5.0	1753	27400		75	125				A

Associated samples: **H15050234-005A, H15050234-008A, H15050234-011A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29121

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150603B: 176** SampType: **Sample Matrix Spike** Lab ID: **H15050235-059AMS** Method: **SW6010B**

Analysis Date: **06/04/15 12:03** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	7600	5.0	334.3	5951		75	125				A
Boron	64.2	1.0	66.86	0	96	75	125				
Iron	24700	5.0	334.3	27400		75	125				A

Associated samples: **H15050234-005A, H15050234-008A, H15050234-011A**

Run ID :Run Order: **ICP2-HE_150603B: 177** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-059AMSD** Method: **SW6010B**

Analysis Date: **06/04/15 12:07** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	7830	5.0	341.6	5951		75	125	7600	3.0	20	A
Boron	68.1	1.0	68.32	0	100	75	125	64.18	5.9	20	
Iron	26800	5.0	341.6	27400		75	125	24750	7.8	20	A

Associated samples: **H15050234-005A, H15050234-008A, H15050234-011A**

Run ID :Run Order: **ICP2-HE_150605B: 121** SampType: **Method Blank** Lab ID: **MB-29121** Method: **SW6010B**

Analysis Date: **06/06/15 00:36** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2	0.7									
Boron	ND	0.1									
Iron	10	0.6									

Associated samples: **H15050234-005A, H15050234-008A, H15050234-011A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29121

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 67** SampType: **Method Blank** Lab ID: **MB-29121** Method: **SW6020**

Analysis Date: **06/02/15 23:55** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.1	0.05									
Barium	ND	0.4									
Beryllium	ND	0.1									
Cadmium	ND	0.2									
Chromium	0.09	0.04									
Cobalt	ND	0.03									
Copper	2	0.1									
Iron	20	5									
Lead	0.1	0.09									
Manganese	0.9	0.2									
Molybdenum	ND	0.09									
Nickel	ND	0.1									
Selenium	ND	0.1									
Silver	0.06	0.05									
Uranium	ND	0.06									
Vanadium	0.9	0.4									
Zinc	2	0.7									

Associated samples: **H15050234-005A, H15050234-008A, H15050234-011A**

Run ID :Run Order: **ICPMS204-B_150602B: 68** SampType: **Laboratory Control Sample** Lab ID: **LCS-29121** Method: **SW6020**

Analysis Date: **06/02/15 23:58** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	84.5	1.0	127	0	**67**	0	251.2				
Arsenic	102	1.0	96.2	0.1155	**106**	69.2	131				
Barium	986	1.0	904	0	**109**	74.8	125				
Beryllium	250	1.0	231	0	**108**	75.8	125.2				
Cadmium	394	1.0	384	0	**103**	73.4	126.6				
Chromium	226	1.0	213	0.09297	**106**	70.9	129.6				
Cobalt	147	1.0	138	0	**106**	73.9	125.4				
Copper	114	1.0	107	1.56	**105**	74.5	125.2				
Iron	8790	8.9	8260	17.47	**106**	12.5	187.7				
Lead	198	1.0	188	0.1208	**105**	74.5	125.5				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29121

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 68** SampType: **Laboratory Control Sample** Lab ID: **LCS-29121** Method: **SW6020**

Analysis Date: **06/02/15 23:58** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	673	1.0	760	0.9431	88	78.3	121.7				
Molybdenum	80.4	1.0	77	0	104	68.8	131.2				
Nickel	261	1.0	241	0	108	74.3	125.7				
Selenium	313	1.0	295	0	106	69.5	130.2				
Silver	28.5	1.0	25.6	0.05741	111	64.5	135.5				
Uranium	1.75	1.0		0		0	0				
Vanadium	115	1.0	110	0.8815	104	67.2	133.6				
Zinc	752	1.3	707	2.41	106	73.8	126.3				

Associated samples: **H15050234-005A, H15050234-008A, H15050234-011A**

Run ID :Run Order: **ICPMS204-B_150602B: 69** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29121** Method: **SW6020**

Analysis Date: **06/03/15 00:01** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	50.1	1.0	47.74	0	105	80	120				
Arsenic	48.1	1.0	47.74	0.1155	100	80	120				
Barium	50.1	1.0	47.74	0	105	80	120				
Beryllium	24.5	1.0	23.87	0	103	80	120				
Cadmium	25.3	1.0	23.87	0	106	80	120				
Chromium	48.4	1.0	47.74	0.09297	101	80	120				
Cobalt	48.7	1.0	47.74	0	102	80	120				
Copper	50.9	1.0	47.74	1.56	103	80	120				
Iron	264	5.0	238.7	17.47	103	80	120				
Lead	49.3	1.0	47.74	0.1208	103	80	120				
Manganese	239	1.0	238.7	0.9431	100	80	120				
Molybdenum	49.3	1.0	47.74	0	103	80	120				
Nickel	49.5	1.0	47.74	0	104	80	120				
Selenium	46.9	1.0	47.74	0	98	80	120				
Silver	25.0	1.0	23.87	0.05741	104	80	120				
Uranium	48.7	1.0	47.74	0	102	80	120				
Vanadium	47.3	1.0	47.74	0.8815	97	80	120				
Zinc	50.7	1.0	47.74	2.41	101	80	120				

Associated samples: **H15050234-005A, H15050234-008A, H15050234-011A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29121

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 92** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15050235-059APDS** Method: **SW6020**

Analysis Date: **06/03/15 01:14** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	650	1.0	680.7	0.5409	95	75	125				
Arsenic	688	1.0	680.7	31.25	97	75	125				
Barium	782	1.0	680.7	130.9	96	75	125				
Beryllium	339	1.0	340.4	0.3111	100	75	125				
Cadmium	328	1.0	340.4	0.7658	96	75	125				
Chromium	668	1.0	680.7	18.92	95	75	125				
Cobalt	639	1.0	680.7	5.74	93	75	125				
Copper	758	1.0	680.7	162.7	87	75	125				
Iron	29500	6.5	3404	30000		75	125				A
Lead	701	1.0	680.7	79.43	91	75	125				
Manganese	3630	1.0	3404	632.7	88	75	125				
Molybdenum	663	1.0	680.7	0.6205	97	75	125				
Nickel	658	1.0	680.7	7.637	95	75	125				
Selenium	618	1.0	680.7	0	91	75	125				
Silver	207	1.0	340.4	0.8794	60	75	125				S
Uranium	644	1.0	680.7	8.549	93	75	125				
Vanadium	715	1.0	680.7	79.57	93	75	125				
Zinc	961	1.0	680.7	361.3	88	75	125				

Associated samples: **H15050234-005A, H15050234-008A, H15050234-011A**

Run ID :Run Order: **ICPMS204-B_150602B: 93** SampType: **Sample Matrix Spike** Lab ID: **H15050235-059AMS** Method: **SW6020**

Analysis Date: **06/03/15 01:17** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	43.4	1.0	66.86	0.5409	64	75	125				S
Arsenic	96.7	1.0	66.86	31.25	98	75	125				
Barium	199	1.0	66.86	130.9	101	75	125				
Beryllium	36.0	1.0	33.43	0.3111	107	75	125				
Cadmium	35.9	1.0	33.43	0.7658	105	75	125				
Chromium	85.8	1.0	66.86	18.92	100	75	125				
Cobalt	74.8	1.0	66.86	5.74	103	75	125				
Copper	208	1.0	66.86	162.7	68	75	125				S
Iron	27000	6.4	334.3	30000		75	125				A
Lead	133	1.0	66.86	79.43	80	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29121

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 93** SampType: **Sample Matrix Spike** Lab ID: **H15050235-059AMS** Method: **SW6020**

Analysis Date: **06/03/15 01:17** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	838	1.0	334.3	632.7	62	75	125				S
Molybdenum	71.0	1.0	66.86	0.6205	105	75	125				
Nickel	77.2	1.0	66.86	7.637	104	75	125				
Selenium	69.0	1.0	66.86	0	103	75	125				
Silver	36.5	1.0	33.43	0.8794	106	75	125				
Uranium	70.7	1.0	66.86	8.549	93	75	125				
Vanadium	133	1.0	66.86	79.57	80	75	125				
Zinc	449	1.0	66.86	361.3		75	125				A

Associated samples: **H15050234-005A, H15050234-008A, H15050234-011A**

Run ID :Run Order: **ICPMS204-B_150602B: 94** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-059AMSD** Method: **SW6020**

Analysis Date: **06/03/15 01:20** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	43.1	1.0	68.32	0.5409	62	75	125	43.35	0.5	20	S
Arsenic	91.5	1.0	68.32	31.25	88	75	125	96.68	5.5	20	
Barium	205	1.0	68.32	130.9	109	75	125	198.7	3.3	20	
Beryllium	36.2	1.0	34.16	0.3111	105	75	125	35.98	0.7	20	
Cadmium	36.4	1.0	34.16	0.7658	104	75	125	35.94	1.4	20	
Chromium	89.2	1.0	68.32	18.92	103	75	125	85.85	3.8	20	
Cobalt	76.1	1.0	68.32	5.74	103	75	125	74.81	1.7	20	
Copper	202	1.0	68.32	162.7	58	75	125	208.3	3.0	20	S
Iron	27200	6.5	341.6	30000		75	125	27020	0.6	20	A
Lead	161	1.0	68.32	79.43	119	75	125	133	19	20	
Manganese	941	1.0	341.6	632.7	90	75	125	838.4	12	20	
Molybdenum	69.9	1.0	68.32	0.6205	101	75	125	71	1.6	20	
Nickel	78.6	1.0	68.32	7.637	104	75	125	77.15	1.9	20	
Selenium	65.4	1.0	68.32	0	96	75	125	69	5.3	20	
Silver	36.5	1.0	34.16	0.8794	104	75	125	36.48	0.1	20	
Uranium	72.7	1.0	68.32	8.549	94	75	125	70.67	2.8	20	
Vanadium	143	1.0	68.32	79.57	93	75	125	133.4	6.8	20	
Zinc	446	1.0	68.32	361.3		75	125	449.2	0.7	20	A

Associated samples: **H15050234-005A, H15050234-008A, H15050234-011A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29122

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150603B: 178** SampType: **Method Blank** Lab ID: **MB-29122** Method: **SW6010B**
Analysis Date: **06/04/15 12:10** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2	0.3									
Boron	0.2	0.1									
Iron	10	0.6									

Associated samples: **H15050234-006A, H15050234-009A, H15050234-012A**

Run ID :Run Order: **ICP2-HE_150603B: 179** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29122** Method: **SW6010B**
Analysis Date: **06/04/15 12:14** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	261	5.0	260.2	1.878	99	80	120				
Boron	50.0	1.0	52.04	0.2194	96	80	120				
Iron	262	5.0	260.2	9.518	97	80	120				

Associated samples: **H15050234-006A, H15050234-009A, H15050234-012A**

Run ID :Run Order: **ICP2-HE_150603B: 180** SampType: **Laboratory Control Sample** Lab ID: **LCS-29122** Method: **SW6010B**
Analysis Date: **06/04/15 12:18** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	12400	6.9	18600	1.878	67	0	201.6				
Boron	204	1.1	197	0.2194	103	59.9	140.1				
Iron	8210	6.1	8260	9.518	99	12.5	187.7				

Associated samples: **H15050234-006A, H15050234-009A, H15050234-012A**

Run ID :Run Order: **ICP2-HE_150605B: 123** SampType: **Method Blank** Lab ID: **MB-29122** Method: **SW6010B**
Analysis Date: **06/06/15 00:43** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	3	0.3									
Boron	ND	0.1									
Iron	10	0.6									

Associated samples: **H15050234-006A, H15050234-009A, H15050234-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29122

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150605B: 132** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15050235-060APDS** Method: **SW6010B**

Analysis Date: **06/06/15 01:17** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5690	5.0	1637	4034	101	75	125				
Boron	312	1.0	327.5	1.163	95	75	125				
Iron	12600	5.0	1637	10960		75	125				A

Associated samples: **H15050234-006A, H15050234-009A, H15050234-012A**

Run ID :Run Order: **ICP2-HE_150605B: 133** SampType: **Sample Matrix Spike** Lab ID: **H15050235-060AMS** Method: **SW6010B**

Analysis Date: **06/06/15 01:21** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5460	5.0	309	4034		75	125				A
Boron	60.1	1.0	61.8	1.163	95	75	125				
Iron	8110	5.0	309	10960		75	125				A

Associated samples: **H15050234-006A, H15050234-009A, H15050234-012A**

Run ID :Run Order: **ICP2-HE_150605B: 134** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-060AMSD** Method: **SW6010B**

Analysis Date: **06/06/15 01:25** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5060	5.0	303.6	4034		75	125	5462	7.7	20	A
Boron	57.2	1.0	60.73	1.163	92	75	125	60.07	4.9	20	
Iron	9830	5.0	303.6	10960		75	125	8113	19	20	A

Associated samples: **H15050234-006A, H15050234-009A, H15050234-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29122

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 98** SampType: **Method Blank** Lab ID: **MB-29122** Method: **SW6020**

Analysis Date: **06/03/15 01:33** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.1	0.08									
Arsenic	0.06	0.05									
Barium	ND	0.4									
Beryllium	ND	0.2									
Cadmium	ND	0.2									
Chromium	0.09	0.04									
Cobalt	ND	0.04									
Copper	1	0.1									
Iron	10	5									
Lead	0.2	0.10									
Manganese	ND	0.3									
Molybdenum	ND	0.10									
Nickel	0.1	0.1									
Selenium	ND	0.1									
Silver	ND	0.06									
Uranium	ND	0.06									
Vanadium	0.8	0.4									
Zinc	3	0.7									

Associated samples: **H15050234-006A, H15050234-009A, H15050234-012A**

Run ID :Run Order: **ICPMS204-B_150602B: 99** SampType: **Laboratory Control Sample** Lab ID: **LCS-29122** Method: **SW6020**

Analysis Date: **06/03/15 01:36** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	82.7	1.0	127	0.1127	**65**	0	251.2				
Arsenic	98.1	1.0	96.2	0.06282	**102**	69.2	131				
Barium	863	1.0	904	0	**95**	74.8	125				
Beryllium	247	1.0	231	0	**107**	75.8	125.2				
Cadmium	383	1.0	384	0	**100**	73.4	126.6				
Chromium	217	1.0	213	0.08899	**102**	70.9	129.6				
Cobalt	142	1.0	138	0	**103**	73.9	125.4				
Copper	110	1.0	107	1.023	**102**	74.5	125.2				
Iron	8240	10.0	8260	11.46	**100**	12.5	187.7				
Lead	190	1.0	188	0.2395	**101**	74.5	125.5				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29122

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 99** SampType: **Laboratory Control Sample** Lab ID: **LCS-29122** Method: **SW6020**

Analysis Date: **06/03/15 01:36** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	842	1.0	760	0	111	78.3	121.7				
Molybdenum	77.9	1.0	77	0	101	68.8	131.2				
Nickel	253	1.0	241	0.1232	105	74.3	125.7				
Selenium	296	1.0	295	0	100	69.5	130.2				
Silver	27.8	1.0	25.6	0	109	64.5	135.5				
Uranium	1.54	1.0		0		0	0				
Vanadium	111	1.0	110	0.8413	100	67.2	133.6				
Zinc	727	1.5	707	3.013	102	73.8	126.3				

Associated samples: **H15050234-006A, H15050234-009A, H15050234-012A**

Run ID :Run Order: **ICPMS204-B_150602B: 100** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29122** Method: **SW6020**

Analysis Date: **06/03/15 01:39** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	55.5	1.0	52.04	0.1127	106	80	120				
Arsenic	52.8	1.0	52.04	0.06282	101	80	120				
Barium	54.1	1.0	52.04	0	104	80	120				
Beryllium	28.6	1.0	26.02	0	110	80	120				
Cadmium	27.4	1.0	26.02	0	105	80	120				
Chromium	53.4	1.0	52.04	0.08899	103	80	120				
Cobalt	54.5	1.0	52.04	0	105	80	120				
Copper	56.3	1.0	52.04	1.023	106	80	120				
Iron	273	5.0	260.2	11.46	100	80	120				
Lead	54.3	1.0	52.04	0.2395	104	80	120				
Manganese	263	1.0	260.2	0	101	80	120				
Molybdenum	53.7	1.0	52.04	0	103	80	120				
Nickel	55.0	1.0	52.04	0.1232	105	80	120				
Selenium	47.6	1.0	52.04	0	91	80	120				
Silver	27.3	1.0	26.02	0	105	80	120				
Uranium	54.1	1.0	52.04	0	104	80	120				
Vanadium	52.4	1.0	52.04	0.8413	99	80	120				
Zinc	56.2	1.0	52.04	3.013	102	80	120				

Associated samples: **H15050234-006A, H15050234-009A, H15050234-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29122

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 123** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15050235-060APDS** Method: **SW6020**

Analysis Date: **06/03/15 02:52** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	601	1.0	635.8	0.2669	95	75	125				
Arsenic	626	1.0	635.8	25.35	94	75	125				
Barium	674	1.0	635.8	73.18	94	75	125				
Beryllium	298	1.0	317.9	0	94	75	125				
Cadmium	299	1.0	317.9	0.3697	94	75	125				
Chromium	595	1.0	635.8	9.023	92	75	125				
Cobalt	584	1.0	635.8	3.724	91	75	125				
Copper	694	1.0	635.8	107.5	92	75	125				
Iron	12800	6.1	3179	10660	68	75	125				S
Lead	616	1.0	635.8	42.47	90	75	125				
Manganese	3210	1.0	3179	482.7	86	75	125				
Molybdenum	611	1.0	635.8	1.829	96	75	125				
Nickel	599	1.0	635.8	5.187	93	75	125				
Selenium	547	1.0	635.8	0	86	75	125				
Silver	144	1.0	317.9	0.1838	45	75	125				S
Uranium	578	1.0	635.8	1.396	91	75	125				
Vanadium	604	1.0	635.8	22.93	91	75	125				
Zinc	769	1.0	635.8	209.7	88	75	125				

Associated samples: **H15050234-006A, H15050234-009A, H15050234-012A**

Run ID :Run Order: **ICPMS204-B_150602B: 124** SampType: **Sample Matrix Spike** Lab ID: **H15050235-060AMS** Method: **SW6020**

Analysis Date: **06/03/15 02:55** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	51.1	1.0	61.8	0.2669	82	75	125				
Arsenic	77.9	1.0	61.8	25.35	85	75	125				
Barium	126	1.0	61.8	73.18	85	75	125				
Beryllium	33.2	1.0	30.9	0	107	75	125				
Cadmium	33.3	1.0	30.9	0.3697	106	75	125				
Chromium	71.6	1.0	61.8	9.023	101	75	125				
Cobalt	66.9	1.0	61.8	3.724	102	75	125				
Copper	223	1.0	61.8	107.5	187	75	125				S
Iron	7970	5.9	309	10660		75	125				A
Lead	91.4	1.0	61.8	42.47	79	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29122

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 124** SampType: **Sample Matrix Spike** Lab ID: **H15050235-060AMS** Method: **SW6020**

Analysis Date: **06/03/15 02:55** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	625	1.0	309	482.7	46	75	125				S
Molybdenum	65.0	1.0	61.8	1.829	102	75	125				
Nickel	70.0	1.0	61.8	5.187	105	75	125				
Selenium	61.5	1.0	61.8	0	99	75	125				
Silver	36.2	1.0	30.9	0.1838	117	75	125				
Uranium	66.4	1.0	61.8	1.396	105	75	125				
Vanadium	79.0	1.0	61.8	22.93	91	75	125				
Zinc	219	1.0	61.8	209.7	15	75	125				S

Associated samples: **H15050234-006A, H15050234-009A, H15050234-012A**

Run ID :Run Order: **ICPMS204-B_150602B: 125** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-060AMSD** Method: **SW6020**

Analysis Date: **06/03/15 02:59** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	51.4	1.0	60.73	0.2669	84	75	125	51.13	0.6	20	
Arsenic	81.1	1.0	60.73	25.35	92	75	125	77.93	4.0	20	
Barium	129	1.0	60.73	73.18	93	75	125	125.8	2.8	20	
Beryllium	33.5	1.0	30.36	0	110	75	125	33.17	1.1	20	
Cadmium	32.5	1.0	30.36	0.3697	106	75	125	33.25	2.3	20	
Chromium	73.8	1.0	60.73	9.023	107	75	125	71.63	3.0	20	
Cobalt	66.1	1.0	60.73	3.724	103	75	125	66.93	1.2	20	
Copper	152	1.0	60.73	107.5	74	75	125	223.2	38	20	SR
Iron	9330	5.8	303.6	10660		75	125	7966	16	20	A
Lead	95.2	1.0	60.73	42.47	87	75	125	91.4	4.0	20	
Manganese	669	1.0	303.6	482.7	61	75	125	625.4	6.8	20	S
Molybdenum	64.7	1.0	60.73	1.829	104	75	125	65.01	0.4	20	
Nickel	72.4	1.0	60.73	5.187	111	75	125	70.02	3.3	20	
Selenium	58.2	1.0	60.73	0	96	75	125	61.45	5.4	20	
Silver	32.6	1.0	30.36	0.1838	107	75	125	36.2	10	20	
Uranium	64.2	1.0	60.73	1.396	103	75	125	66.44	3.4	20	
Vanadium	82.8	1.0	60.73	22.93	99	75	125	78.98	4.7	20	
Zinc	209	1.0	60.73	209.7	-1	75	125	219	4.7	20	S

Associated samples: **H15050234-006A, H15050234-009A, H15050234-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_44747

Date: *09-Jun-15*

Run ID :Run Order: **SUB-C199713: 1** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV-44747** Method: **A5310 C**

Analysis Date: **05/22/15 14:59** Units: **mg/L** **Prep Info:** Prep Date: **5/21/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.1	0.50	10	0	**101**	90	110	0			

Associated samples: **H15050234-001E, H15050234-002E, H15050234-003E**

Run ID :Run Order: **SUB-C199713: 22** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1-44747** Method: **A5310 C**

Analysis Date: **05/22/15 23:27** Units: **mg/L** **Prep Info:** Prep Date: **5/21/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.2	0.50	10	0	**102**	90	110	0			

Associated samples: **H15050234-001E, H15050234-002E, H15050234-003E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_R199713

Date: *09-Jun-15*

Run ID :Run Order: **SUB-C199713: 24** SampType: **Sample Matrix Spike** Lab ID: **C15050721-017EMS** Method: **A5310 C**

Analysis Date: **05/23/15 00:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.6	0.50	5	5.054	**111**	85	115	0			

Associated samples: **H15050234-001E, H15050234-002E, H15050234-003E**

Run ID :Run Order: **SUB-C199713: 25** SampType: **Sample Matrix Spike Duplicate** Lab ID: **C15050721-017EMSD** Method: **A5310 C**

Analysis Date: **05/23/15 00:36** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.7	0.50	5	5.054	**112**	85	115	10.58	**0.8**	10	

Associated samples: **H15050234-001E, H15050234-002E, H15050234-003E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106225

Date: *09-Jun-15*

Run ID :Run Order: **PHSC_101-H_150519A: 54** SampType: **Method Blank** Lab ID: **MB** Method: **A2320 B**
Analysis Date: **05/19/15 11:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	2	0.7									

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Run ID :Run Order: **PHSC_101-H_150519A: 56** SampType: **Laboratory Control Sample** Lab ID: **LCS** Method: **A2320 B**
Analysis Date: **05/19/15 11:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	600	4.0	600	2.08	**99**	90	110				

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Run ID :Run Order: **PHSC_101-H_150519A: 59** SampType: **Sample Matrix Spike** Lab ID: **H15050223-021AMS** Method: **A2320 B**
Analysis Date: **05/19/15 11:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	720	4.0	600	144.7	**97**	80	120				

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Run ID :Run Order: **PHSC_101-H_150519A: 68** SampType: **Sample Duplicate** Lab ID: **H15050234-001ADUP** Method: **A2320 B**
Analysis Date: **05/19/15 12:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	74	4.0		0				73.8	**0.7**	10	
Bicarbonate as HCO3	90	4.0		0				89.43	**0.7**	10	

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Run ID :Run Order: **PHSC_101-H_150519A: 100** SampType: **Sample Duplicate** Lab ID: **H15050235-013ADUP** Method: **A2320 B**
Analysis Date: **05/19/15 13:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	96	4.0		0				97.2	**0.9**	10	
Bicarbonate as HCO3	99	4.0		0				100.2	**0.7**	10	

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106232

Date: *09-Jun-15*

Run ID :Run Order: **FIA203-HE_150519A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E353.2**
Analysis Date: **05/19/15 09:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.02	0.010	1	0	102	90	110				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA203-HE_150519A: 10** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E353.2**
Analysis Date: **05/19/15 09:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.943	0.011	1	0	94	90	110				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA203-HE_150519A: 11** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**
Analysis Date: **05/19/15 09:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.527	0.010	0.5	0	105	90	110				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA203-HE_150519A: 12** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E353.2**
Analysis Date: **05/19/15 09:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	-0.0184	0.010		0		0	0				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA203-HE_150519A: 14** SampType: **Method Blank** Lab ID: **MBLK** Method: **E353.2**
Analysis Date: **05/19/15 09:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	ND	0.003									

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA203-HE_150519A: 22** SampType: **Sample Matrix Spike** Lab ID: **H15050235-002DMS** Method: **E353.2**
Analysis Date: **05/19/15 10:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.930	0.011	1	0	93	90	110				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106232

Date: *09-Jun-15*

Run ID :Run Order: **FIA203-HE_150519A: 23** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-002DMSD** Method: **E353.2**

Analysis Date: **05/19/15 10:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.942	0.011	1	0	**94**	90	110	0.9297	**1.3**	20	

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106247

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150519A: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **05/19/15 09:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.779	0.10	0.8	0	97	95	105				
Calcium	40.1	1.0	40	0	100	95	105				
Magnesium	39.9	1.0	40	0	100	95	105				
Sodium	40.6	1.0	40	0	101	95	105				

Associated samples: **H15050234-001B, H15050234-002B, H15050234-003B**

Run ID :Run Order: **ICP2-HE_150519A: 7** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-1** Method: **E200.7**

Analysis Date: **05/19/15 09:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.48	0.10	2.5	0	99	95	105				
Calcium	25.3	1.0	25	0	101	95	105				
Magnesium	24.9	1.0	25	0	99	95	105				
Sodium	25.1	1.0	25	0	100	95	105				

Associated samples: **H15050234-001B, H15050234-002B, H15050234-003B**

Run ID :Run Order: **ICP2-HE_150519A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **05/19/15 09:40** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	-0.00218	0.10		0		0	0				
Calcium	471	1.0	500	0	94	80	120				
Magnesium	520	1.0	500	0	104	80	120				
Sodium	0.0392	1.0		0		0	0				

Associated samples: **H15050234-001B, H15050234-002B, H15050234-003B**

Run ID :Run Order: **ICP2-HE_150519A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **05/19/15 09:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.966	0.10	1	0	97	80	120				
Calcium	461	1.0	500	0	92	80	120				
Magnesium	505	1.0	500	0	101	80	120				
Sodium	20.0	1.0	20	0	100	80	120				

Associated samples: **H15050234-001B, H15050234-002B, H15050234-003B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106247

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150519A: 13** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.7**

Analysis Date: **05/19/15 09:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.003									
Calcium	0.04	0.03									
Magnesium	0.006	0.005									
Sodium	ND	0.02									

Associated samples: **H15050234-001B, H15050234-002B, H15050234-003B**

Run ID :Run Order: **ICP2-HE_150519A: 14** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.7**

Analysis Date: **05/19/15 09:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.974	0.10	1	0	97	85	115				
Calcium	49.5	1.0	50	0.04355	99	85	115				
Magnesium	49.5	1.0	50	0.00572	99	85	115				
Sodium	50.6	1.0	50	0	101	85	115				

Associated samples: **H15050234-001B, H15050234-002B, H15050234-003B**

Run ID :Run Order: **ICP2-HE_150519A: 17** SampType: **Sample Matrix Spike** Lab ID: **H15050234-001BMS2** Method: **E200.7**

Analysis Date: **05/19/15 10:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.02	0.050	1	0.01381	100	70	130				
Calcium	74.2	1.0	50	24.88	99	70	130				
Magnesium	55.7	1.0	50	6.072	99	70	130				
Sodium	59.2	1.0	50	9.366	100	70	130				

Associated samples: **H15050234-001B, H15050234-002B, H15050234-003B**

Run ID :Run Order: **ICP2-HE_150519A: 18** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050234-001BMSD2** Method: **E200.7**

Analysis Date: **05/19/15 10:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.969	0.050	1	0.01381	96	70	130	1.018	4.9	20	
Calcium	74.2	1.0	50	24.88	99	70	130	74.15	0.1	20	
Magnesium	55.6	1.0	50	6.072	99	70	130	55.66	0.1	20	
Sodium	60.4	1.0	50	9.366	102	70	130	59.19	2.0	20	

Associated samples: **H15050234-001B, H15050234-002B, H15050234-003B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106247

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150519A: 19** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **05/19/15 10:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.44	0.10	2.5	0	**98**	90	110				
Calcium	25.1	1.0	25	0	**100**	90	110				
Magnesium	24.7	1.0	25	0	**99**	90	110				
Sodium	24.9	1.0	25	0	**100**	90	110				

Associated samples: **H15050234-001B, H15050234-002B, H15050234-003B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106256

Date: *09-Jun-15*

Run ID :Run Order: **FIA202-HE_150519B: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E365.1**

Analysis Date: **05/19/15 13:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.226	0.010	0.25	0	**90**	90	110				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA202-HE_150519B: 10** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **05/19/15 13:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.0908	0.010	0.1	0	**91**	90	110				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA202-HE_150519B: 11** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E365.1**

Analysis Date: **05/19/15 13:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	-0.000830	0.010		0		0	0				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106261

Date: *09-Jun-15*

Run ID :Run Order: **FIA203-HE_150519C: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E350.1**
Analysis Date: **05/19/15 15:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	15.5	0.50	15.2	0	102	90	110				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA203-HE_150519C: 8** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E350.1**
Analysis Date: **05/19/15 15:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.958	0.055	1	0	96	90	110				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA203-HE_150519C: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**
Analysis Date: **05/19/15 15:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.466	0.050	0.5	0	93	90	110				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA203-HE_150519C: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E350.1**
Analysis Date: **05/19/15 15:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	-0.00469	0.050		0		0	0				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA203-HE_150519C: 16** SampType: **Sample Matrix Spike** Lab ID: **H15050235-002DMS** Method: **E350.1**
Analysis Date: **05/19/15 15:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.909	0.055	1	0	91	80	120				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA203-HE_150519C: 17** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-002DMSD** Method: **E350.1**
Analysis Date: **05/19/15 15:17** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.918	0.055	1	0	92	80	120	0.9089	1.0	10	

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106261

Date: *09-Jun-15*

Run ID :Run Order: **FIA203-HE_150519C: 104** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E350.1**

Analysis Date: **05/19/15 15:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	15.5	0.50	15.2	0	**102**	90	110				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA203-HE_150519C: 106** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**

Analysis Date: **05/19/15 15:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.466	0.050	0.5	0	**93**	90	110				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Run ID :Run Order: **FIA203-HE_150519C: 107** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E350.1**

Analysis Date: **05/19/15 15:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	-0.00469	0.050		0		0	0				

Associated samples: **H15050234-001D, H15050234-002D, H15050234-003D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106272

Date: *09-Jun-15*

Run ID :Run Order: **IC102-H_150519A: 12** SampType: **Method Blank** Lab ID: **ICB** Method: **E300.0**
Analysis Date: **05/19/15 15:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	0.05	0.010									
Sulfate	ND	0.009									

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Run ID :Run Order: **IC102-H_150519A: 13** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E300.0**
Analysis Date: **05/19/15 15:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	100	1.0	100	0	100	90	110				
Sulfate	403	1.0	400	0	101	90	110				

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Run ID :Run Order: **IC102-H_150519A: 14** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E300.0**
Analysis Date: **05/19/15 15:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	48.6	1.0	50	0.052	97	90	110				
Sulfate	197	1.0	200	0	98	90	110				

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Run ID :Run Order: **IC102-H_150519A: 65** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV051915-4** Method: **E300.0**
Analysis Date: **05/20/15 01:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	98.2	1.0	100	0	98	90	110				
Sulfate	401	1.0	400	0	100	90	110				

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Run ID :Run Order: **IC102-H_150519A: 73** SampType: **Sample Matrix Spike** Lab ID: **H15050231-001AMS** Method: **E300.0**
Analysis Date: **05/20/15 02:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	54.0	1.0	50	5.287	97	90	110				
Sulfate	303	1.0	200	92.73	105	90	110				

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106272

Date: *09-Jun-15*

Run ID :Run Order: **IC102-H_150519A: 74** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050231-001AMSD** Method: **E300.0**

Analysis Date: **05/20/15 02:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	53.9	1.0	50	5.287	**97**	90	110	53.97	**0.1**	20	
Sulfate	307	1.0	200	92.73	**107**	90	110	302.8	**1.2**	20	

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106275

Date: *09-Jun-15*

Run ID :Run Order: **FIA203-HE_150520A: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**

Analysis Date: **05/20/15 09:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.504	0.10	0.5	0	101	90	110				

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Run ID :Run Order: **FIA203-HE_150520A: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**

Analysis Date: **05/20/15 09:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	-0.00434	0.10		0		0	0				

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106288

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150520A: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **05/20/15 10:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.762	0.10	0.8	0	95	95	105				
Calcium	40.5	1.0	40	0	101	95	105				
Iron	4.02	0.020	4	0	101	95	105				
Magnesium	40.3	1.0	40	0	101	95	105				
Sodium	40.2	1.0	40	0	101	95	105				

Associated samples: **H15050234-001C, H15050234-002C, H15050234-003C**

Run ID :Run Order: **ICP2-HE_150520A: 7** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-1** Method: **E200.7**

Analysis Date: **05/20/15 10:13** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.46	0.10	2.5	0	98	95	105				
Calcium	25.7	1.0	25	0	103	95	105				
Iron	2.55	0.020	2.5	0	102	95	105				
Magnesium	25.4	1.0	25	0	102	95	105				
Sodium	24.8	1.0	25	0	99	95	105				

Associated samples: **H15050234-001C, H15050234-002C, H15050234-003C**

Run ID :Run Order: **ICP2-HE_150520A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **05/20/15 10:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.00310	0.10		0		0	0				
Calcium	476	1.0	500	0	95	80	120				
Iron	188	0.020	200	0	94	80	120				
Magnesium	521	1.0	500	0	104	80	120				
Sodium	0.00641	1.0		0		0	0				

Associated samples: **H15050234-001C, H15050234-002C, H15050234-003C**

Run ID :Run Order: **ICP2-HE_150520A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **05/20/15 10:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.02	0.10	1	0	102	80	120				
Calcium	501	1.0	500	0	100	80	120				
Iron	198	0.020	200	0	99	80	120				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106288

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150520A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **05/20/15 10:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	548	1.0	500	0	110	80	120				
Sodium	21.4	1.0	20	0	107	80	120				

Associated samples: **H15050234-001C, H15050234-002C, H15050234-003C**

Run ID :Run Order: **ICP2-HE_150520A: 58** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **05/20/15 14:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.49	0.10	2.5	0	99	90	110				
Calcium	24.9	1.0	25	0	100	90	110				
Iron	2.47	0.020	2.5	0	99	90	110				
Magnesium	24.6	1.0	25	0	98	90	110				
Sodium	24.9	1.0	25	0	100	90	110				

Associated samples: **H15050234-001C, H15050234-002C, H15050234-003C**

Run ID :Run Order: **ICP2-HE_150520A: 67** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **05/20/15 15:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.47	0.10	2.5	0	99	90	110				
Calcium	24.7	1.0	25	0	99	90	110				
Iron	2.47	0.020	2.5	0	99	90	110				
Magnesium	24.4	1.0	25	0	98	90	110				
Sodium	24.8	1.0	25	0	99	90	110				

Associated samples: **H15050234-001C, H15050234-002C, H15050234-003C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106315

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **05/20/15 10:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.299	0.10	0.3	0	100	90	110				
Antimony	0.0611	0.050	0.06	0	102	90	110				
Arsenic	0.0613	0.0050	0.06	0	102	90	110				
Barium	0.0601	0.10	0.06	0	100	90	110				
Beryllium	0.0306	0.0010	0.03	0	102	90	110				
Cadmium	0.0312	0.0010	0.03	0	104	90	110				
Chromium	0.0603	0.010	0.06	0	100	90	110				
Cobalt	0.0605	0.010	0.06	0	101	90	110				
Copper	0.0617	0.010	0.06	0	103	90	110				
Iron	0.316	0.020	0.3	0	105	90	110				
Lead	0.0604	0.010	0.06	0	101	90	110				
Manganese	0.301	0.010	0.3	0	100	90	110				
Molybdenum	0.0603	0.0050	0.06	0	101	90	110				
Nickel	0.0609	0.010	0.06	0	101	90	110				
Potassium	3.20	0.50	3	0	107	90	110				
Selenium	0.0596	0.0050	0.06	0	99	90	110				
Silver	0.0291	0.0050	0.03	0	97	90	110				
Uranium	0.0608	0.0010	0.06	0	101	90	110				
Vanadium	0.0593	0.10	0.06	0	99	90	110				
Zinc	0.0616	0.010	0.06	0	103	90	110				

Associated samples: **H15050234-001B, H15050234-001C, H15050234-002B, H15050234-002C, H15050234-003B, H15050234-003C**

Run ID :Run Order: **ICPMS204-B_150520A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **05/20/15 10:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.0	0.10	40	0	95	70	130				
Antimony	0.000114	0.050		0							
Arsenic	0.000163	0.0050		0							
Barium	9.80E-05	0.10		0							
Beryllium	-2.10E-05	0.0010		0							
Cadmium	0.000286	0.0010		0							
Chromium	0.00103	0.010		0							
Cobalt	1.80E-05	0.010		0							

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106315

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **05/20/15 10:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.000641	0.010		0							
Iron	99.6	0.020	100	0	100	70	130				
Lead	0.000242	0.010		0							
Manganese	0.000311	0.010		0							
Molybdenum	0.835	0.0050	0.8	0	104	70	130				
Nickel	0.000556	0.010		0							
Potassium	40.5	0.50	40	0	101	70	130				
Selenium	0.000514	0.0050		0							
Silver	0.000118	0.0050		0							
Uranium	0.000105	0.0010		0							
Vanadium	8.90E-05	0.10		0							
Zinc	0.000867	0.010		0							

Associated samples: **H15050234-001B, H15050234-001C, H15050234-002B, H15050234-002C, H15050234-003B, H15050234-003C**

Run ID :Run Order: **ICPMS204-B_150520A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **05/20/15 10:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.0	0.10	40	0	95	70	130				
Antimony	0.000284	0.050		0		0	0				
Arsenic	0.0109	0.0050	0.01	0	109	70	130				
Barium	7.20E-05	0.10		0		0	0				
Beryllium	3.00E-06	0.0010		0		0	0				
Cadmium	0.0106	0.0010	0.01	0	106	70	130				
Chromium	0.0222	0.010	0.02	0	111	70	130				
Cobalt	0.0214	0.010	0.02	0	107	70	130				
Copper	0.0212	0.010	0.02	0	106	70	130				
Iron	98.9	0.020	100	0	99	70	130				
Lead	0.000239	0.010		0		0	0				
Manganese	0.0219	0.010	0.02	0	109	70	130				
Molybdenum	0.839	0.0050	0.8	0	105	70	130				
Nickel	0.0216	0.010	0.02	0	108	70	130				
Potassium	40.3	0.50	40	0	101	70	130				
Selenium	0.0106	0.0050	0.01	0	106	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106315

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **05/20/15 10:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	0.0184	0.0050	0.02	0	92	70	130				
Uranium	2.80E-05	0.0010		0		0	0				
Vanadium	0.0214	0.10	0.02	0	107	70	130				
Zinc	0.0110	0.010	0.01	0	110	70	130				

Associated samples: **H15050234-001B, H15050234-001C, H15050234-002B, H15050234-002C, H15050234-003B, H15050234-003C**

Run ID :Run Order: **ICPMS204-B_150520A: 17** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **05/20/15 11:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.002	0.0008									
Antimony	ND	4E-05									
Arsenic	ND	6E-05									
Barium	0.0002	8E-05									
Beryllium	ND	0.0002									
Cadmium	ND	2E-05									
Chromium	ND	3E-05									
Cobalt	ND	3E-05									
Copper	0.0006	6E-05									
Iron	0.004	0.0008									
Lead	4E-05	3E-05									
Manganese	6E-05	4E-05									
Molybdenum	ND	3E-05									
Nickel	4E-05	3E-05									
Potassium	ND	0.008									
Selenium	ND	4E-05									
Silver	ND	3E-05									
Uranium	ND	1.0E-05									
Vanadium	ND	3E-05									
Zinc	0.0007	0.0001									

Associated samples: **H15050234-001B, H15050234-002B, H15050234-003B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106315

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 18** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**

Analysis Date: **05/20/15 11:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0529	0.10	0.05	0.002403	101	85	115				
Antimony	0.0488	0.050	0.05	0	98	85	115				
Arsenic	0.0512	0.0050	0.05	0	102	85	115				
Barium	0.0508	0.10	0.05	0.0002369	101	85	115				
Beryllium	0.0501	0.0010	0.05	0	100	85	115				
Cadmium	0.0521	0.0010	0.05	0	104	85	115				
Chromium	0.0512	0.010	0.05	0	102	85	115				
Cobalt	0.0518	0.010	0.05	0	104	85	115				
Copper	0.0535	0.010	0.05	0.0006383	106	85	115				
Iron	0.162	0.020	0.15	0.003668	105	85	115				
Lead	0.0512	0.010	0.05	0.000041	102	85	115				
Manganese	0.0521	0.010	0.05	0.0000568	104	85	115				
Molybdenum	0.0507	0.0050	0.05	0	101	85	115				
Nickel	0.0520	0.010	0.05	0.0000381	104	85	115				
Potassium	1.04	0.50	1	0	104	85	115				
Selenium	0.0513	0.0050	0.05	0	103	85	115				
Silver	0.0208	0.0050	0.02	0	104	85	115				
Uranium	0.0491	0.0010	0.05	0	98	85	115				
Vanadium	0.0502	0.10	0.05	0	100	85	115				
Zinc	0.0552	0.010	0.05	0.0007073	109	85	115				

Associated samples: **H15050234-001B, H15050234-002B, H15050234-003B**

Run ID :Run Order: **ICPMS204-B_150520A: 23** SampType: **Sample Matrix Spike** Lab ID: **H15050223-021DMS** Method: **E200.8**

Analysis Date: **05/20/15 11:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0517	0.030	0.05	0.001644	100	70	130				
Antimony	0.0497	0.0010	0.05	0	99	70	130				
Arsenic	0.0541	0.0010	0.05	0.0001999	108	70	130				
Barium	0.154	0.050	0.05	0.1033	101	70	130				
Beryllium	0.0504	0.0010	0.05	0	101	70	130				
Cadmium	0.0523	0.0010	0.05	0	105	70	130				
Chromium	0.0514	0.0050	0.05	0.0001647	103	70	130				
Cobalt	0.0515	0.0050	0.05	0	103	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106315

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 23** SampType: **Sample Matrix Spike** Lab ID: **H15050223-021DMS** Method: **E200.8**

Analysis Date: **05/20/15 11:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.0519	0.0050	0.05	0.0002378	103	70	130				
Iron	0.166	0.020	0.15	0.009227	104	70	130				
Lead	0.0516	0.0010	0.05	0	103	70	130				
Manganese	0.0612	0.0010	0.05	0.009011	104	70	130				
Molybdenum	0.0511	0.0010	0.05	0.0001557	102	70	130				
Nickel	0.0512	0.0050	0.05	0.0000823	102	70	130				
Potassium	1.81	1.0	1	0.775	104	70	130				
Selenium	0.0546	0.0010	0.05	0	109	70	130				
Silver	0.0201	0.0010	0.02	0	101	70	130				
Uranium	0.0511	0.00030	0.05	0.0003673	101	70	130				
Vanadium	0.0505	0.010	0.05	0.0000898	101	70	130				
Zinc	0.0553	0.010	0.05	0.002446	106	70	130				

Associated samples: **H15050234-001B, H15050234-002B, H15050234-003B**

Run ID :Run Order: **ICPMS204-B_150520A: 24** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050223-021DMSD** Method: **E200.8**

Analysis Date: **05/20/15 11:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0533	0.030	0.05	0.001644	103	70	130	0.05172	3.0	20	
Antimony	0.0507	0.0010	0.05	0	101	70	130	0.04974	1.9	20	
Arsenic	0.0540	0.0010	0.05	0.0001999	108	70	130	0.05412	0.3	20	
Barium	0.155	0.050	0.05	0.1033	103	70	130	0.1539	0.6	20	
Beryllium	0.0528	0.0010	0.05	0	106	70	130	0.05042	4.7	20	
Cadmium	0.0526	0.0010	0.05	0	105	70	130	0.05231	0.6	20	
Chromium	0.0517	0.0050	0.05	0.0001647	103	70	130	0.05142	0.6	20	
Cobalt	0.0518	0.0050	0.05	0	104	70	130	0.05154	0.5	20	
Copper	0.0523	0.0050	0.05	0.0002378	104	70	130	0.05187	0.8	20	
Iron	0.167	0.020	0.15	0.009227	105	70	130	0.1657	0.9	20	
Lead	0.0521	0.0010	0.05	0	104	70	130	0.05163	0.9	20	
Manganese	0.0612	0.0010	0.05	0.009011	104	70	130	0.06125	0.0	20	
Molybdenum	0.0520	0.0010	0.05	0.0001557	104	70	130	0.05108	1.7	20	
Nickel	0.0518	0.0050	0.05	0.0000823	104	70	130	0.05118	1.3	20	
Potassium	1.85	1.0	1	0.775	107	70	130	1.813	2.0	20	
Selenium	0.0554	0.0010	0.05	0	111	70	130	0.05459	1.5	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106315

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 24** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050223-021DMSD** Method: **E200.8**

Analysis Date: **05/20/15 11:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	0.0211	0.0010	0.02	0	106	70	130	0.02015	4.7	20	
Uranium	0.0515	0.00030	0.05	0.0003673	102	70	130	0.05109	0.9	20	
Vanadium	0.0514	0.010	0.05	0.0000898	103	70	130	0.05054	1.6	20	
Zinc	0.0555	0.010	0.05	0.002446	106	70	130	0.05526	0.4	20	

Associated samples: **H15050234-001B, H15050234-002B, H15050234-003B**

Run ID :Run Order: **ICPMS204-B_150520A: 66** SampType: **Sample Matrix Spike** Lab ID: **H15050235-006BMS** Method: **E200.8**

Analysis Date: **05/20/15 14:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0558	0.030	0.05	0.007195	97	70	130				
Antimony	0.0485	0.0010	0.05	0.000203	97	70	130				
Arsenic	0.0583	0.0010	0.05	0.005469	106	70	130				
Barium	0.0834	0.050	0.05	0.03273	101	70	130				
Beryllium	0.0492	0.0010	0.05	0	98	70	130				
Cadmium	0.0506	0.0010	0.05	0.000168	101	70	130				
Chromium	0.0486	0.0050	0.05	0.0001045	97	70	130				
Cobalt	0.0494	0.0050	0.05	0.0001962	98	70	130				
Copper	0.0645	0.0050	0.05	0.01493	99	70	130				
Iron	0.286	0.020	0.15	0.1347	101	70	130				
Lead	0.0508	0.0010	0.05	0.0003341	101	70	130				
Manganese	0.240	0.0010	0.05	0.1892	101	70	130				
Molybdenum	0.0538	0.0010	0.05	0.005211	97	70	130				
Nickel	0.0494	0.0050	0.05	0.0005295	98	70	130				
Potassium	5.46	1.0	1	4.549		70	130				A
Selenium	0.0534	0.0010	0.05	0.0001373	107	70	130				
Silver	0.0185	0.0010	0.02	0	92	70	130				
Uranium	0.0532	0.00030	0.05	0.003669	99	70	130				
Vanadium	0.0499	0.010	0.05	0.001734	96	70	130				
Zinc	0.0970	0.010	0.05	0.04473	105	70	130				

Associated samples: **H15050234-001B, H15050234-002B, H15050234-003B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106315

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 67** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-006BMSD** Method: **E200.8**

Analysis Date: **05/20/15 14:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0551	0.030	0.05	0.007195	**96**	70	130	0.05582	**1.3**	20	
Antimony	0.0486	0.0010	0.05	0.000203	**97**	70	130	0.0485	**0.1**	20	
Arsenic	0.0577	0.0010	0.05	0.005469	**105**	70	130	0.05829	**1.0**	20	
Barium	0.0822	0.050	0.05	0.03273	**99**	70	130	0.08342	**1.5**	20	
Beryllium	0.0505	0.0010	0.05	0	**101**	70	130	0.04922	**2.5**	20	
Cadmium	0.0500	0.0010	0.05	0.000168	**100**	70	130	0.05059	**1.2**	20	
Chromium	0.0486	0.0050	0.05	0.0001045	**97**	70	130	0.04863	**0.1**	20	
Cobalt	0.0484	0.0050	0.05	0.0001962	**96**	70	130	0.04935	**1.9**	20	
Copper	0.0639	0.0050	0.05	0.01493	**98**	70	130	0.06452	**0.9**	20	
Iron	0.284	0.020	0.15	0.1347	**100**	70	130	0.2863	**0.6**	20	
Lead	0.0497	0.0010	0.05	0.0003341	**99**	70	130	0.05079	**2.2**	20	
Manganese	0.239	0.0010	0.05	0.1892	**100**	70	130	0.2396	**0.1**	20	
Molybdenum	0.0541	0.0010	0.05	0.005211	**98**	70	130	0.05384	**0.5**	20	
Nickel	0.0491	0.0050	0.05	0.0005295	**97**	70	130	0.04942	**0.6**	20	
Potassium	5.53	1.0	1	4.549		70	130	5.465	**1.2**	20	A
Selenium	0.0527	0.0010	0.05	0.0001373	**105**	70	130	0.05345	**1.4**	20	
Silver	0.0188	0.0010	0.02	0	**94**	70	130	0.01848	**1.9**	20	
Uranium	0.0532	0.00030	0.05	0.003669	**99**	70	130	0.05325	**0.0**	20	
Vanadium	0.0499	0.010	0.05	0.001734	**96**	70	130	0.04986	**0.0**	20	
Zinc	0.0972	0.010	0.05	0.04473	**105**	70	130	0.09701	**0.2**	20	

Associated samples: **H15050234-001B, H15050234-002B, H15050234-003B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106581

Date: *09-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 8** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **06/02/15 18:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0577	0.0010	0.06	0	**96**	90	110				
Arsenic	0.0581	0.0010	0.06	0	**97**	90	110				
Barium	0.0567	0.0010	0.06	0	**94**	90	110				
Beryllium	0.0297	0.0010	0.03	0	**99**	90	110				
Cadmium	0.0297	0.0010	0.03	0	**99**	90	110				
Chromium	0.0575	0.0010	0.06	0	**96**	90	110				
Cobalt	0.0577	0.0010	0.06	0	**96**	90	110				
Copper	0.0593	0.0010	0.06	0	**99**	90	110				
Iron	0.316	0.0010	0.3	0	**105**	90	110				
Lead	0.0570	0.0010	0.06	0	**95**	90	110				
Manganese	0.288	0.0010	0.3	0	**96**	90	110				
Molybdenum	0.0568	0.0010	0.06	0	**95**	90	110				
Nickel	0.0581	0.0010	0.06	0	**97**	90	110				
Selenium	0.0591	0.0010	0.06	0	**98**	90	110				
Silver	0.0278	0.0010	0.03	0	**93**	90	110				
Uranium	0.0574	0.00030	0.06	0	**96**	90	110				
Vanadium	0.0571	0.0010	0.06	0	**95**	90	110				
Zinc	0.0594	0.0010	0.06	0	**99**	90	110				

Associated samples: **H15050234-004A, H15050234-005A, H15050234-006A, H15050234-007A, H15050234-008A, H15050234-009A, H15050234-010A, H15050234-011A, H15050234-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106633

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150603B: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **06/03/15 08:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.05	0.10	4	0	101	90	110				
Boron	0.807	0.10	0.8	0	101	90	110				
Cadmium	0.395	0.0010	0.4	0	99	90	110				
Copper	0.782	0.010	0.8	0	98	90	110				
Iron	3.90	0.020	4	0	98	90	110				

Associated samples: **H15050234-004A, H15050234-005A, H15050234-006A, H15050234-007A, H15050234-008A, H15050234-009A, H15050234-010A, H15050234-011A, H15050234-012A**

Run ID :Run Order: **ICP2-HE_150603B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **06/03/15 09:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	545	0.10	500	0	109	80	120				
Boron	0.00854	0.10		0		0	0				
Cadmium	0.00437	0.0010		0		0	0				
Copper	-0.00394	0.010		0		0	0				
Iron	191	0.020	200	0	95	80	120				

Associated samples: **H15050234-004A, H15050234-005A, H15050234-006A, H15050234-007A, H15050234-008A, H15050234-009A, H15050234-010A, H15050234-011A, H15050234-012A**

Run ID :Run Order: **ICP2-HE_150603B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **06/03/15 09:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	538	0.10	500	0	108	80	120				
Boron	1.00	0.10	1	0	100	80	120				
Cadmium	0.903	0.0010	1	0	90	80	120				
Copper	0.508	0.010	0.5	0	102	80	120				
Iron	188	0.020	200	0	94	80	120				

Associated samples: **H15050234-004A, H15050234-005A, H15050234-006A, H15050234-007A, H15050234-008A, H15050234-009A, H15050234-010A, H15050234-011A, H15050234-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106647

Date: *09-Jun-15*

Run ID :Run Order: **SOIL DRYING OVEN 2_150604A: 2** SampType: **Sample Duplicate** Lab ID: **H15050234-004ADUP** Method: **D2974**

Analysis Date: **06/05/15 13:46** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	51.1	0.20		0				52.83	3.4	20	

Associated samples: **H15050234-004A, H15050234-005A, H15050234-006A, H15050234-007A, H15050234-008A, H15050234-009A, H15050234-010A, H15050234-011A, H15050234-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106656

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150605B: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **06/05/15 10:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.811	0.10	0.8	0	101	90	110				
Iron	4.04	0.020	4	0	101	90	110				
Lead	0.789	0.019	0.8	0	99	90	110				

Associated samples: **H15050234-007A, H15050234-008A**

Run ID :Run Order: **ICP2-HE_150605B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **06/05/15 11:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.00593	0.10		0		0	0				
Iron	192	0.020	200	0	96	80	120				
Lead	0.0155	0.019		0		0	0				

Associated samples: **H15050234-007A, H15050234-008A**

Run ID :Run Order: **ICP2-HE_150605B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **06/05/15 11:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.01	0.10	1	0	101	80	120				
Iron	192	0.020	200	0	96	80	120				
Lead	0.953	0.019	1	0	95	80	120				

Associated samples: **H15050234-007A, H15050234-008A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106681

Date: *09-Jun-15*

Run ID :Run Order: **ICP2-HE_150608A: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **06/08/15 10:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.394	0.0010	0.4	0	98	90	110				

Associated samples: **H15050234-004A**

Run ID :Run Order: **ICP2-HE_150608A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **06/08/15 10:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.00495	0.0010		0		0	0				

Associated samples: **H15050234-004A**

Run ID :Run Order: **ICP2-HE_150608A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **06/08/15 10:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.898	0.0010	1	0	90	80	120				

Associated samples: **H15050234-004A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15050234
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: TSS150518A

Date: *09-Jun-15*

Run ID :Run Order: **ACCU-124 (14410200)_150518A: 1** SampType: **Method Blank** Lab ID: **MB-1_150518A** Method: **A2540 D**

Analysis Date: **05/18/15 14:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	0.1									

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Run ID :Run Order: **ACCU-124 (14410200)_150518A: 2** SampType: **Laboratory Control Sample** Lab ID: **LCS-2_150518A** Method: **A2540 D**

Analysis Date: **05/18/15 14:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	104	10	100	0	**104**	80	120				

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Run ID :Run Order: **ACCU-124 (14410200)_150518A: 4** SampType: **Sample Duplicate** Lab ID: **H15050234-001ADUP** Method: **A2540 D**

Analysis Date: **05/18/15 14:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	6.00	10		0				6.4		5	

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Run ID :Run Order: **ACCU-124 (14410200)_150518A: 1** SampType: **Sample Duplicate** Lab ID: **H15050235-008ADUP** Method: **A2540 D**

Analysis Date: **05/18/15 14:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	19.6	10		0				19	**3.1**	5	

Associated samples: **H15050234-001A, H15050234-002A, H15050234-003A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Work Order Receipt Checklist

Natural Resource Damage Program H15050234

Login completed by: Tracy L. Lorash
Date Received: 5/18/2015
Reviewed by: BL2000\rwilliams
Received by: jcm
Reviewed Date: 5/22/2015
Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	°C See comments		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

Cooler 1 was received at 3.1°C, Cooler 2 at 3.1°C, Cooler 3 at 1.0°C, Cooler 4 at 5.4°C, Box 1 at 17.5°C, Box 2 at 17.4°C. The temperature for Coolers 1, 2 and 4 were taken from a temperature blank and the temperature for Cooler 3 and Box 1 and 2 was taken from a client sample. Samples in Coolers were received on wet ice, samples in Boxes were not received on ice. tl 5/19/15

ANALYTICAL SUMMARY REPORT

June 15, 2015

MT DEQ-Federal Superfund
PO Box 200901
Helena, MT 59620-0901

Work Order: H15050235 Quote ID: H1088 - Silver Bow Monitoring

Project Name: Silver Bow Creek Monitoring

Energy Laboratories Inc Helena MT received the following 66 samples for MT DEQ-Federal Superfund on 5/18/2015 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H15050235-001	SS-06G	05/15/15 16:00	05/18/15	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Carbon, Dissolved Organic Conductivity Mercury, Dissolved Mercury, Total Recoverable Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Nitrogen, Total Persulfate Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Digestion, Total P Water Nitrogen, Total Persulfate Phosphorus, Total Solids, Total Suspended Solids, Suspended Volatile
H15050235-002	Field Blank #2	05/15/15 15:30	05/18/15	Aqueous	Same As Above
H15050235-003	SS-07	05/15/15 14:45	05/18/15	Aqueous	Same As Above
H15050235-004	SS-08	05/15/15 13:45	05/18/15	Aqueous	Same As Above
H15050235-005	SS-10A	05/15/15 13:00	05/18/15	Aqueous	Same As Above
H15050235-006	SS-10B	05/15/15 12:00	05/18/15	Aqueous	Same As Above
H15050235-007	SS-11C	05/15/15 10:45	05/18/15	Aqueous	Same As Above
H15050235-008	SS-11D	05/15/15 9:45	05/18/15	Aqueous	Same As Above
H15050235-009	SS-11D, Field Duplicate #2	05/15/15 9:45	05/18/15	Aqueous	Same As Above
H15050235-010	SS-13	05/14/15 16:45	05/18/15	Aqueous	Same As Above
H15050235-011	Field Blank #1	05/14/15 16:30	05/18/15	Aqueous	Same As Above
H15050235-012	SS-14	05/14/15 15:30	05/18/15	Aqueous	Same As Above
H15050235-013	SS-15A	05/14/15 14:15	05/18/15	Aqueous	Same As Above
H15050235-014	SS-15B	05/14/15 12:45	05/18/15	Aqueous	Same As Above
H15050235-015	SS-16B	05/14/15 11:00	05/18/15	Aqueous	Same As Above
H15050235-016	SS-17D	05/14/15 10:15	05/18/15	Aqueous	Same As Above

ANALYTICAL SUMMARY REPORT

H15050235-017	SS-17D, Field Duplicate #1	05/14/15 10:15	05/18/15	Aqueous	Same As Above
H15050235-018	SS-19	05/14/15 9:00	05/18/15	Aqueous	Same As Above
H15050235-019	SS-06G Sediment Sieve <0.065mm	05/15/15 16:00	05/18/15	Sediment	Metals by ICP/ICPMS, Total Mercury in Solid By CVAA Percent Moisture Digestion, Total Metals Digestion, Mercury by CVAA Sieves Soil Preparation
H15050235-020	SS-06G Sediment Sieve 0.065-1mm	05/15/15 16:00	05/18/15	Sediment	Metals by ICP/ICPMS, Total Mercury in Solid By CVAA Percent Moisture Digestion, Total Metals Digestion, Mercury by CVAA Sieves
H15050235-021	SS-06G Sediment Sieve 1-2mm	05/15/15 16:00	05/18/15	Sediment	Same As Above
H15050235-022	SS-06G, Sediment Duplicate #2 Sediment Sieve <0.065	05/15/15 16:00	05/18/15	Sediment	Same As Above
H15050235-023	SS-06G, Sediment Duplicate #2 Sediment Sieve 0.065-1mm	05/15/15 16:00	05/18/15	Sediment	Same As Above
H15050235-024	SS-06G, Sediment Duplicate #2 Sediment Sieve 1-2mm	05/15/15 16:00	05/18/15	Sediment	Same As Above
H15050235-025	SS-07 Sediment Sieve <0.065mm	05/15/15 14:45	05/18/15	Sediment	Same As Above
H15050235-026	SS-07 Sediment Sieve 0.065-1mm	05/15/15 14:45	05/18/15	Sediment	Same As Above
H15050235-027	SS-07 Sediment Sieve 1-2mm	05/15/15 14:45	05/18/15	Sediment	Same As Above
H15050235-028	SS-08 Sediment Sieve <0.065mm	05/15/15 13:45	05/18/15	Sediment	Same As Above
H15050235-029	SS-08 Sediment Sieve 0.065-1mm	05/15/15 13:45	05/18/15	Sediment	Same As Above
H15050235-030	SS-08 Sediment Sieve 1-2mm	05/15/15 13:45	05/18/15	Sediment	Same As Above
H15050235-031	SS-10A Sediment Sieve <0.065mm	05/15/15 13:00	05/18/15	Sediment	Same As Above
H15050235-032	SS-10A Sediment Sieve 0.065-1mm	05/15/15 13:00	05/18/15	Sediment	Same As Above
H15050235-033	SS-10A Sediment Sieve 1-2mm	05/15/15 13:00	05/18/15	Sediment	Same As Above
H15050235-034	SS-10B Sediment Sieve <0.065mm	05/15/15 12:00	05/18/15	Sediment	Same As Above
H15050235-035	SS-10B Sediment Sieve 0.065-1mm	05/15/15 12:00	05/18/15	Sediment	Same As Above
H15050235-036	SS-10B Sediment Sieve 1-2mm	05/15/15 12:00	05/18/15	Sediment	Same As Above

ANALYTICAL SUMMARY REPORT

H15050235-037	SS-11C Sediment Sieve <0.065mm	05/15/15 10:45	05/18/15	Sediment	Same As Above
H15050235-038	SS-11C Sediment Sieve 0.065-1mm	05/15/15 10:45	05/18/15	Sediment	Same As Above
H15050235-039	SS-11C Sediment Sieve 1-2mm	05/15/15 10:45	05/18/15	Sediment	Same As Above
H15050235-040	SS-11D Sediment Sieve <0.065mm	05/15/15 9:45	05/18/15	Sediment	Same As Above
H15050235-041	SS-11D Sediment Sieve 0.065-1mm	05/15/15 9:45	05/18/15	Sediment	Same As Above
H15050235-042	SS-11D Sediment Sieve 1-2mm	05/15/15 9:45	05/18/15	Sediment	Same As Above
H15050235-043	SS-13 Sediment Sieve <0.065mm	05/14/15 16:45	05/18/15	Sediment	Same As Above
H15050235-044	SS-13 Sediment Sieve 0.065-1mm	05/14/15 16:45	05/18/15	Sediment	Same As Above
H15050235-045	SS-13 Sediment Sieve 1-2mm	05/14/15 16:45	05/18/15	Sediment	Same As Above
H15050235-046	SS-14 Sediment Sieve <0.065mm	05/14/15 15:30	05/18/15	Sediment	Same As Above
H15050235-047	SS-14 Sediment Sieve 0.065-1mm	05/14/15 15:30	05/18/15	Sediment	Same As Above
H15050235-048	SS-14 Sediment Sieve 1-2mm	05/14/15 15:30	05/18/15	Sediment	Same As Above
H15050235-049	SS-15A Sediment Sieve <0.065mm	05/14/15 14:15	05/18/15	Sediment	Same As Above
H15050235-050	SS-15A Sediment Sieve 0.065-1mm	05/14/15 14:15	05/18/15	Sediment	Same As Above
H15050235-051	SS-15A Sediment Sieve 1-2mm	05/14/15 14:15	05/18/15	Sediment	Same As Above
H15050235-052	SS-15A, Sediment Duplicate #1 Sediment Sieve <0.065	05/14/15 14:15	05/18/15	Sediment	Same As Above
H15050235-053	SS-15A, Sediment Duplicate #1 Sediment Sieve 0.065-1mm	05/14/15 14:15	05/18/15	Sediment	Same As Above
H15050235-054	SS-15A, Sediment Duplicate #1 Sediment Sieve 1-2mm	05/14/15 14:15	05/18/15	Sediment	Same As Above
H15050235-055	SS-15B Sediment Sieve <0.065mm	05/14/15 12:45	05/18/15	Sediment	Same As Above
H15050235-056	SS-15B Sediment Sieve 0.065-1mm	05/14/15 12:45	05/18/15	Sediment	Same As Above
H15050235-057	SS-15B Sediment Sieve 1-2mm	05/14/15 12:45	05/18/15	Sediment	Same As Above
H15050235-058	SS-16B Sediment Sieve <0.065mm	05/14/15 11:00	05/18/15	Sediment	Same As Above
H15050235-059	SS-16B Sediment Sieve 0.065-1mm	05/14/15 11:00	05/18/15	Sediment	Same As Above

ANALYTICAL SUMMARY REPORT

H15050235-060	SS-16B Sediment Sieve 1-2mm	05/14/15 11:00	05/18/15	Sediment	Same As Above
H15050235-061	SS-17D Sediment Sieve <0.065mm	05/14/15 10:15	05/18/15	Sediment	Same As Above
H15050235-062	SS-17D Sediment Sieve 0.065-1mm	05/14/15 10:15	05/18/15	Sediment	Same As Above
H15050235-063	SS-17D Sediment Sieve 1-2mm	05/14/15 10:15	05/18/15	Sediment	Same As Above
H15050235-064	SS-19 Sediment Sieve <0.065mm	05/14/15 9:00	05/18/15	Sediment	Same As Above
H15050235-065	SS-19 Sediment Sieve 0.065-1mm	05/14/15 9:00	05/18/15	Sediment	Same As Above
H15050235-066	SS-19 Sediment Sieve 1-2mm	05/14/15 9:00	05/18/15	Sediment	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Work Order: H15050235

Report Date: 06/15/15

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.

Uranium is not present in the LCS standard for Preparation Batch 29120, 29121, 29122 and 29139. All batch QC (MB, LFB, PDS, MS/MSD) for Uranium was within method acceptable limits. These batches were approved. abb 6/9/15

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G
Lab ID: H15050235-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 16:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	12	mg/L		1		A2540 D	05/18/15 14:34 / SR		-124 (14410200)_150518A	7	TSS150518A
Solids, Volatile Suspended	4	mg/L		1		A2540 E	05/19/15 09:52 / SR		MISC WC_150519A	6	150519A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	84	mg/L		4		A2320 B	05/19/15 12:38 / SR		PHSC_101-H_150519A	74	R106225
Bicarbonate as HCO3	100	mg/L		4		A2320 B	05/19/15 12:38 / SR		PHSC_101-H_150519A	74	R106225
Chloride	17	mg/L		1		E300.0	05/20/15 03:39 / SR		IC102-H_150519A	79	R106272
Sulfate	54	mg/L		1		E300.0	05/20/15 03:39 / SR		IC102-H_150519A	79	R106272
Hardness as CaCO3	136	mg/L		1		A2340 B	05/19/15 10:29 / abb		CALC_150521B	80	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.6	mg/L		0.5		A5310 C	05/23/15 01:38 / eli-c		SUB-C199713	29	C_R199713
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/19/15 15:14 / cm		FIA203-HE_150519C	111	R106261
Nitrogen, Nitrate+Nitrite as N	0.58	mg/L		0.02		E353.2	05/19/15 10:01 / cm		FIA203-HE_150519A	20	R106232
Nitrogen, Total	0.88	mg/L		0.05		A4500 N-C	05/20/15 09:31 / cm	05/19/15 09:52	FIA203-HE_150520A	16	28989
Phosphorus, Total as P	0.082	mg/L		0.003		E365.1	05/19/15 13:10 / cm	05/19/15 09:49	FIA202-HE_150519B	17	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Arsenic	0.004	mg/L		0.001		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Barium	0.033	mg/L		0.003		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 10:29 / sld		ICP2-HE_150519A	23	R106247
Cadmium	ND	mg/L		0.00003		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Calcium	39	mg/L		1		E200.7	05/19/15 10:29 / sld		ICP2-HE_150519A	23	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Copper	0.004	mg/L		0.001		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Iron	0.15	mg/L		0.02		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G
Lab ID: H15050235-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 16:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Magnesium	9	mg/L		1		E200.7	05/19/15 10:29 / sld		ICP2-HE_150519A	23	R106247
Manganese	0.043	mg/L		0.001		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 12:04 / rgk	05/19/15 07:39	HGCV202-H_150520A	34	28978
Molybdenum	0.005	mg/L		0.005		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Potassium	3	mg/L		1		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Sodium	16	mg/L		1		E200.7	05/19/15 10:29 / sld		ICP2-HE_150519A	23	R106247
Uranium	0.0033	mg/L		0.0002		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
Zinc	ND	mg/L		0.008		E200.8	05/20/15 13:25 / dck		ICPMS204-B_150520A	52	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.232	mg/L		0.009		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Arsenic	0.006	mg/L		0.001		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Barium	0.037	mg/L		0.003		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 15:24 / sld	05/19/15 09:40	ICP2-HE_150520A	71	28985
Cadmium	0.00011	mg/L		0.00003		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Calcium	39	mg/L		1		E200.7	05/20/15 15:24 / sld	05/19/15 09:40	ICP2-HE_150520A	71	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Copper	0.011	mg/L		0.001		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Iron	0.75	mg/L		0.02		E200.7	05/20/15 15:24 / sld	05/19/15 09:40	ICP2-HE_150520A	71	28985
Lead	0.0027	mg/L		0.0003		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Magnesium	10	mg/L		1		E200.7	05/20/15 15:24 / sld	05/19/15 09:40	ICP2-HE_150520A	71	28985
Manganese	0.072	mg/L		0.001		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Mercury	7.1E-06	mg/L		5E-06		E245.1	05/20/15 12:08 / rgk	05/19/15 07:39	HGCV202-H_150520A	35	28978
Molybdenum	0.005	mg/L		0.005		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G
Lab ID: H15050235-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 16:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Potassium	3	mg/L		1		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Sodium	16	mg/L		1		E200.7	05/20/15 15:24 / sld	05/19/15 09:40	ICP2-HE_150520A	71	28985
Uranium	0.0035	mg/L		0.0002		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985
Zinc	0.024	mg/L		0.008		E200.8	05/20/15 13:29 / dck	05/19/15 09:40	ICPMS204-B_150520A	53	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #2
Lab ID: H15050235-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 15:30
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	ND	mg/L		1		A2540 D	05/18/15 14:34 / SR		-124 (14410200)_150518A	8	TSS150518A
Solids, Volatile Suspended	ND	mg/L		1		A2540 E	05/19/15 09:52 / SR		MISC WC_150519A	7	150519A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	ND	mg/L		4		A2320 B	05/19/15 12:43 / SR		PHSC_101-H_150519A	76	R106225
Bicarbonate as HCO3	ND	mg/L		4		A2320 B	05/19/15 12:43 / SR		PHSC_101-H_150519A	76	R106225
Chloride	ND	mg/L		1		E300.0	05/20/15 03:50 / SR		IC102-H_150519A	80	R106272
Sulfate	ND	mg/L		1		E300.0	05/20/15 03:50 / SR		IC102-H_150519A	80	R106272
Hardness as CaCO3	ND	mg/L		1		A2340 B	05/26/15 07:32 / sld		WATERCALC_150526A	2	R106355
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	ND	mg/L		0.5		A5310 C	05/23/15 01:54 / eli-c		SUB-C199713	30	C_R199713
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/19/15 15:15 / cm		FIA203-HE_150519C	112	R106261
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.02		E353.2	05/19/15 10:02 / cm		FIA203-HE_150519A	21	R106232
Nitrogen, Total	ND	mg/L		0.05		A4500 N-C	05/20/15 09:32 / cm	05/19/15 09:52	FIA203-HE_150520A	17	28989
Phosphorus, Total as P	ND	mg/L		0.003		E365.1	05/19/15 13:11 / cm	05/19/15 09:49	FIA202-HE_150519B	18	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Arsenic	ND	mg/L		0.001		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Barium	ND	mg/L		0.003		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 10:33 / sld		ICP2-HE_150519A	24	R106247
Cadmium	ND	mg/L		0.00003		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Calcium	ND	mg/L		1		E200.7	05/19/15 10:33 / sld		ICP2-HE_150519A	24	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Copper	ND	mg/L		0.001		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Iron	ND	mg/L		0.02		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #2
Lab ID: H15050235-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 15:30
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Magnesium	ND	mg/L		1		E200.7	05/19/15 10:33 / sld		ICP2-HE_150519A	24	R106247
Manganese	ND	mg/L		0.001		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 12:12 / rgk	05/19/15 07:39	HGCV202-H_150520A	36	28978
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Potassium	ND	mg/L		1		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Sodium	ND	mg/L		1		E200.7	05/19/15 10:33 / sld		ICP2-HE_150519A	24	R106247
Uranium	ND	mg/L		0.0002		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
Zinc	ND	mg/L		0.008		E200.8	05/20/15 13:32 / dck		ICPMS204-B_150520A	54	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Arsenic	ND	mg/L		0.001		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Barium	ND	mg/L		0.003		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 15:28 / sld	05/19/15 09:40	ICP2-HE_150520A	72	28985
Cadmium	ND	mg/L		0.00003		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Calcium	ND	mg/L		1		E200.7	05/20/15 15:28 / sld	05/19/15 09:40	ICP2-HE_150520A	72	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Copper	ND	mg/L		0.001		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Iron	ND	mg/L		0.02		E200.7	05/20/15 15:28 / sld	05/19/15 09:40	ICP2-HE_150520A	72	28985
Lead	ND	mg/L		0.0003		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Magnesium	ND	mg/L		1		E200.7	05/20/15 15:28 / sld	05/19/15 09:40	ICP2-HE_150520A	72	28985
Manganese	ND	mg/L		0.001		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 12:15 / rgk	05/19/15 07:39	HGCV202-H_150520A	37	28978
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #2
Lab ID: H15050235-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 15:30
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Potassium	ND	mg/L		1		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Sodium	ND	mg/L		1		E200.7	05/20/15 15:28 / sld	05/19/15 09:40	ICP2-HE_150520A	72	28985
Uranium	ND	mg/L		0.0002		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985
Zinc	ND	mg/L		0.008		E200.8	05/20/15 13:35 / dck	05/19/15 09:40	ICPMS204-B_150520A	55	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07
Lab ID: H15050235-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 14:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	10	mg/L		1		A2540 D	05/18/15 14:35 / SR		-124 (14410200)_150518A	9	TSS150518A
Solids, Volatile Suspended	4	mg/L		1		A2540 E	05/19/15 09:52 / SR		MISC WC_150519A	8	150519A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	98	mg/L		4		A2320 B	05/19/15 12:49 / SR		PHSC_101-H_150519A	78	R106225
Bicarbonate as HCO3	120	mg/L		4		A2320 B	05/19/15 12:49 / SR		PHSC_101-H_150519A	78	R106225
Chloride	22	mg/L		1		E300.0	05/20/15 12:51 / SR		IC102-H_150520A	21	R106295
Sulfate	53	mg/L		1		E300.0	05/20/15 12:51 / SR		IC102-H_150520A	21	R106295
Hardness as CaCO3	132	mg/L		1		A2340 B	05/19/15 10:37 / abb		CALC_150521B	102	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	6.3	mg/L		0.5		A5310 C	05/23/15 02:10 / eli-c		SUB-C199713	31	C_R199713
NUTRIENTS											
Nitrogen, Ammonia as N	3.0	mg/L	D	0.1		E350.1	05/19/15 15:51 / cm		FIA203-HE_150519C	142	R106261
Nitrogen, Nitrate+Nitrite as N	0.49	mg/L		0.02		E353.2	05/19/15 10:06 / cm		FIA203-HE_150519A	24	R106232
Nitrogen, Total	4.1	mg/L	D	0.2		A4500 N-C	05/20/15 10:09 / cm	05/19/15 09:52	FIA203-HE_150520A	48	28989
Phosphorus, Total as P	0.339	mg/L		0.003		E365.1	05/19/15 13:14 / cm	05/19/15 09:49	FIA202-HE_150519B	21	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Arsenic	0.004	mg/L		0.001		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Barium	0.033	mg/L		0.003		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 10:37 / sld		ICP2-HE_150519A	25	R106247
Cadmium	0.00003	mg/L		0.00003		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Calcium	38	mg/L		1		E200.7	05/19/15 10:37 / sld		ICP2-HE_150519A	25	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Copper	0.006	mg/L		0.001		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Iron	0.18	mg/L		0.02		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07
Lab ID: H15050235-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 14:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	0.0003	mg/L		0.0003		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Magnesium	9	mg/L		1		E200.7	05/19/15 10:37 / sld		ICP2-HE_150519A	25	R106247
Manganese	0.055	mg/L		0.001		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 12:27 / rgk	05/19/15 07:39	HGCV202-H_150520A	40	28978
Molybdenum	0.006	mg/L		0.005		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Potassium	5	mg/L		1		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Sodium	20	mg/L		1		E200.7	05/19/15 10:37 / sld		ICP2-HE_150519A	25	R106247
Uranium	0.0030	mg/L		0.0002		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
Zinc	0.023	mg/L		0.008		E200.8	05/20/15 13:38 / dck		ICPMS204-B_150520A	56	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.186	mg/L		0.009		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Arsenic	0.005	mg/L		0.001		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Barium	0.034	mg/L		0.003		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 15:32 / sld	05/19/15 09:40	ICP2-HE_150520A	73	28985
Cadmium	0.00009	mg/L		0.00003		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Calcium	38	mg/L		1		E200.7	05/20/15 15:32 / sld	05/19/15 09:40	ICP2-HE_150520A	73	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Copper	0.011	mg/L		0.001		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Iron	0.63	mg/L		0.02		E200.7	05/20/15 15:32 / sld	05/19/15 09:40	ICP2-HE_150520A	73	28985
Lead	0.0026	mg/L		0.0003		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Magnesium	9	mg/L		1		E200.7	05/20/15 15:32 / sld	05/19/15 09:40	ICP2-HE_150520A	73	28985
Manganese	0.077	mg/L		0.001		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Mercury	6.9E-06	mg/L		5E-06		E245.1	05/20/15 12:41 / rgk	05/19/15 07:39	HGCV202-H_150520A	43	28978
Molybdenum	0.006	mg/L		0.005		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07
Lab ID: H15050235-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 14:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Potassium	4	mg/L		1		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Sodium	20	mg/L		1		E200.7	05/20/15 15:32 / sld	05/19/15 09:40	ICP2-HE_150520A	73	28985
Uranium	0.0033	mg/L		0.0002		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985
Zinc	0.034	mg/L		0.008		E200.8	05/20/15 13:42 / dck	05/19/15 09:40	ICPMS204-B_150520A	57	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08
Lab ID: H15050235-004
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 13:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	8	mg/L		1		A2540 D	05/18/15 14:35 / SR		L24 (14410200)_150518A	10	TSS150518A
Solids, Volatile Suspended	4	mg/L		1		A2540 E	05/19/15 09:52 / SR		MISC WC_150519A	9	150519A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	92	mg/L		4		A2320 B	05/19/15 12:55 / SR		PHSC_101-H_150519A	80	R106225
Bicarbonate as HCO3	110	mg/L		4		A2320 B	05/19/15 12:55 / SR		PHSC_101-H_150519A	80	R106225
Chloride	24	mg/L		1		E300.0	05/20/15 13:02 / SR		IC102-H_150520A	22	R106295
Sulfate	61	mg/L		1		E300.0	05/20/15 13:02 / SR		IC102-H_150520A	22	R106295
Hardness as CaCO3	142	mg/L		1		A2340 B	05/19/15 10:41 / abb		CALC_150521B	113	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	6.7	mg/L		0.5		A5310 C	05/23/15 02:26 / eli-c		SUB-C199713	32	C_R199713
NUTRIENTS											
Nitrogen, Ammonia as N	1.68	mg/L		0.05		E350.1	05/19/15 15:20 / cm		FIA203-HE_150519C	116	R106261
Nitrogen, Nitrate+Nitrite as N	1.58	mg/L		0.02		E353.2	05/19/15 10:07 / cm		FIA203-HE_150519A	25	R106232
Nitrogen, Total	4.2	mg/L	D	0.2		A4500 N-C	05/20/15 10:10 / cm	05/19/15 09:52	FIA203-HE_150520A	49	28989
Phosphorus, Total as P	0.319	mg/L		0.003		E365.1	05/19/15 13:15 / cm	05/19/15 09:49	FIA202-HE_150519B	22	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Arsenic	0.005	mg/L		0.001		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Barium	0.034	mg/L		0.003		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 10:41 / sld		ICP2-HE_150519A	26	R106247
Cadmium	0.00012	mg/L		0.00003		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Calcium	40	mg/L		1		E200.7	05/19/15 10:41 / sld		ICP2-HE_150519A	26	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Copper	0.008	mg/L		0.001		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Iron	0.17	mg/L		0.02		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08
Lab ID: H15050235-004
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 13:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	0.0004	mg/L		0.0003		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Magnesium	10	mg/L		1		E200.7	05/19/15 10:41 / sld		ICP2-HE_150519A	26	R106247
Manganese	0.144	mg/L		0.001		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 12:44 / rgk	05/19/15 07:39	HGCV202-H_150520A	44	28978
Molybdenum	0.006	mg/L		0.005		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Potassium	5	mg/L		1		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Sodium	23	mg/L		1		E200.7	05/19/15 10:41 / sld		ICP2-HE_150519A	26	R106247
Uranium	0.0033	mg/L		0.0002		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
Zinc	0.051	mg/L		0.008		E200.8	05/20/15 13:45 / dck		ICPMS204-B_150520A	58	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.121	mg/L		0.009		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Arsenic	0.005	mg/L		0.001		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Barium	0.036	mg/L		0.003		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 15:36 / sld	05/19/15 09:40	ICP2-HE_150520A	74	28985
Cadmium	0.00020	mg/L		0.00003		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Calcium	41	mg/L		1		E200.7	05/20/15 15:36 / sld	05/19/15 09:40	ICP2-HE_150520A	74	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Copper	0.014	mg/L		0.001		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Iron	0.54	mg/L		0.02		E200.7	05/20/15 15:36 / sld	05/19/15 09:40	ICP2-HE_150520A	74	28985
Lead	0.0019	mg/L		0.0003		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Magnesium	10	mg/L		1		E200.7	05/20/15 15:36 / sld	05/19/15 09:40	ICP2-HE_150520A	74	28985
Manganese	0.168	mg/L		0.001		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Mercury	8.6E-06	mg/L		5E-06		E245.1	05/20/15 12:48 / rgk	05/19/15 07:39	HGCV202-H_150520A	45	28978
Molybdenum	0.006	mg/L		0.005		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08
Lab ID: H15050235-004
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 13:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Potassium	5	mg/L		1		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Sodium	23	mg/L		1		E200.7	05/20/15 15:36 / sld	05/19/15 09:40	ICP2-HE_150520A	74	28985
Uranium	0.0036	mg/L		0.0002		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985
Zinc	0.063	mg/L		0.008		E200.8	05/20/15 13:48 / dck	05/19/15 09:40	ICPMS204-B_150520A	59	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A
Lab ID: H15050235-005
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 13:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	9	mg/L		1		A2540 D	05/18/15 14:35 / SR		L24 (14410200)_150518A	11	TSS150518A
Solids, Volatile Suspended	4	mg/L		1		A2540 E	05/19/15 09:52 / SR		MISC WC_150519A	10	150519A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	86	mg/L		4		A2320 B	05/19/15 13:00 / SR		PHSC_101-H_150519A	82	R106225
Bicarbonate as HCO3	100	mg/L		4		A2320 B	05/19/15 13:00 / SR		PHSC_101-H_150519A	82	R106225
Chloride	22	mg/L		1		E300.0	05/20/15 13:13 / SR		IC102-H_150520A	23	R106295
Sulfate	68	mg/L		1		E300.0	05/20/15 13:13 / SR		IC102-H_150520A	23	R106295
Hardness as CaCO3	147	mg/L		1		A2340 B	05/19/15 10:45 / abb		CALC_150521B	124	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	6.0	mg/L		0.5		A5310 C	05/23/15 02:42 / eli-c		SUB-C199713	33	C_R199713
NUTRIENTS											
Nitrogen, Ammonia as N	0.26	mg/L		0.05		E350.1	05/19/15 15:21 / cm		FIA203-HE_150519C	117	R106261
Nitrogen, Nitrate+Nitrite as N	1.71	mg/L		0.02		E353.2	05/19/15 10:08 / cm		FIA203-HE_150519A	26	R106232
Nitrogen, Total	2.68	mg/L	D	0.06		A4500 N-C	05/20/15 10:12 / cm	05/19/15 09:52	FIA203-HE_150520A	50	28989
Phosphorus, Total as P	0.339	mg/L		0.003		E365.1	05/19/15 13:16 / cm	05/19/15 09:49	FIA202-HE_150519B	23	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Arsenic	0.005	mg/L		0.001		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Barium	0.032	mg/L		0.003		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 10:45 / sld		ICP2-HE_150519A	27	R106247
Cadmium	0.00015	mg/L		0.00003		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Calcium	42	mg/L		1		E200.7	05/19/15 10:45 / sld		ICP2-HE_150519A	27	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Copper	0.015	mg/L		0.001		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Iron	0.13	mg/L		0.02		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A
Lab ID: H15050235-005
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 13:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	0.0003	mg/L		0.0003		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Magnesium	10	mg/L		1		E200.7	05/19/15 10:45 / sld		ICP2-HE_150519A	27	R106247
Manganese	0.186	mg/L		0.001		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 12:52 / rgk	05/19/15 07:39	HGCV202-H_150520A	46	28978
Molybdenum	0.005	mg/L		0.005		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Potassium	5	mg/L		1		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Sodium	23	mg/L		1		E200.7	05/19/15 10:45 / sld		ICP2-HE_150519A	27	R106247
Uranium	0.0038	mg/L		0.0002		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
Zinc	0.044	mg/L		0.008		E200.8	05/20/15 13:51 / dck		ICPMS204-B_150520A	60	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.113	mg/L		0.009		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Arsenic	0.006	mg/L		0.001		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Barium	0.034	mg/L		0.003		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 15:40 / sld	05/19/15 09:40	ICP2-HE_150520A	75	28985
Cadmium	0.00031	mg/L		0.00003		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Calcium	42	mg/L		1		E200.7	05/20/15 15:40 / sld	05/19/15 09:40	ICP2-HE_150520A	75	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Copper	0.025	mg/L		0.001		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Iron	0.48	mg/L		0.02		E200.7	05/20/15 15:40 / sld	05/19/15 09:40	ICP2-HE_150520A	75	28985
Lead	0.0017	mg/L		0.0003		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Magnesium	10	mg/L		1		E200.7	05/20/15 15:40 / sld	05/19/15 09:40	ICP2-HE_150520A	75	28985
Manganese	0.206	mg/L		0.001		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Mercury	7.1E-06	mg/L		5E-06		E245.1	05/20/15 12:56 / rgk	05/19/15 07:39	HGCV202-H_150520A	47	28978
Molybdenum	0.006	mg/L		0.005		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A
Lab ID: H15050235-005
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 13:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Potassium	5	mg/L		1		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Sodium	23	mg/L		1		E200.7	05/20/15 15:40 / sld	05/19/15 09:40	ICP2-HE_150520A	75	28985
Uranium	0.0040	mg/L		0.0002		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985
Zinc	0.060	mg/L		0.008		E200.8	05/20/15 13:55 / dck	05/19/15 09:40	ICPMS204-B_150520A	61	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B
Lab ID: H15050235-006
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 12:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	9	mg/L		1		A2540 D	05/18/15 14:36 / SR		L24 (14410200)_150518A	12	TSS150518A
Solids, Volatile Suspended	4	mg/L		1		A2540 E	05/19/15 09:52 / SR		MISC WC_150519A	11	150519A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	88	mg/L		4		A2320 B	05/19/15 13:05 / SR		PHSC_101-H_150519A	84	R106225
Bicarbonate as HCO3	110	mg/L		4		A2320 B	05/19/15 13:05 / SR		PHSC_101-H_150519A	84	R106225
Chloride	23	mg/L		1		E300.0	05/20/15 13:24 / SR		IC102-H_150520A	24	R106295
Sulfate	68	mg/L		1		E300.0	05/20/15 13:24 / SR		IC102-H_150520A	24	R106295
Hardness as CaCO3	149	mg/L		1		A2340 B	05/19/15 10:48 / abb		CALC_150521B	135	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	6.0	mg/L		0.5		A5310 C	05/23/15 02:57 / eli-c		SUB-C199713	34	C_R199713
NUTRIENTS											
Nitrogen, Ammonia as N	0.26	mg/L		0.05		E350.1	05/19/15 15:22 / cm		FIA203-HE_150519C	118	R106261
Nitrogen, Nitrate+Nitrite as N	1.69	mg/L		0.02		E353.2	05/19/15 10:12 / cm		FIA203-HE_150519A	29	R106232
Nitrogen, Total	2.68	mg/L	D	0.06		A4500 N-C	05/20/15 10:13 / cm	05/19/15 09:52	FIA203-HE_150520A	51	28989
Phosphorus, Total as P	0.329	mg/L		0.003		E365.1	05/19/15 13:17 / cm	05/19/15 09:49	FIA202-HE_150519B	24	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Arsenic	0.005	mg/L		0.001		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Barium	0.033	mg/L		0.003		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 10:48 / sld		ICP2-HE_150519A	28	R106247
Cadmium	0.00017	mg/L		0.00003		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Calcium	42	mg/L		1		E200.7	05/19/15 10:48 / sld		ICP2-HE_150519A	28	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Copper	0.015	mg/L		0.001		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Iron	0.13	mg/L		0.02		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B
Lab ID: H15050235-006
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 12:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	0.0003	mg/L		0.0003		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Magnesium	10	mg/L		1		E200.7	05/19/15 10:48 / sld		ICP2-HE_150519A	28	R106247
Manganese	0.189	mg/L		0.001		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 13:00 / rgk	05/19/15 07:39	HGCV202-H_150520A	48	28978
Molybdenum	0.005	mg/L		0.005		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Potassium	5	mg/L		1		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Sodium	24	mg/L		1		E200.7	05/19/15 10:48 / sld		ICP2-HE_150519A	28	R106247
Uranium	0.0037	mg/L		0.0002		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
Zinc	0.045	mg/L		0.008		E200.8	05/20/15 14:08 / dck		ICPMS204-B_150520A	65	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.124	mg/L		0.009		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985
Antimony	ND	mg/L		0.0005		E200.8	05/21/15 12:33 / dck	05/19/15 09:40	ICPMS204-B_150521B	34	28985
Arsenic	0.006	mg/L		0.001		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985
Barium	0.034	mg/L		0.003		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 15:43 / sld	05/19/15 09:40	ICP2-HE_150520A	76	28985
Cadmium	0.00033	mg/L		0.00003		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985
Calcium	42	mg/L		1		E200.7	05/20/15 15:43 / sld	05/19/15 09:40	ICP2-HE_150520A	76	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985
Copper	0.025	mg/L		0.001		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985
Iron	0.49	mg/L		0.02		E200.7	05/20/15 15:43 / sld	05/19/15 09:40	ICP2-HE_150520A	76	28985
Lead	0.0018	mg/L		0.0003		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985
Magnesium	10	mg/L		1		E200.7	05/20/15 15:43 / sld	05/19/15 09:40	ICP2-HE_150520A	76	28985
Manganese	0.215	mg/L		0.001		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985
Mercury	9.6E-06	mg/L		5E-06		E245.1	05/20/15 13:04 / rgk	05/19/15 07:39	HGCV202-H_150520A	49	28978
Molybdenum	0.005	mg/L		0.005		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B
Lab ID: H15050235-006
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 12:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985
Potassium	5	mg/L		1		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985
Silver	0.0004	mg/L		0.0002		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985
Sodium	23	mg/L		1		E200.7	05/20/15 15:43 / sld	05/19/15 09:40	ICP2-HE_150520A	76	28985
Uranium	0.0039	mg/L		0.0002		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985
Zinc	0.063	mg/L		0.008		E200.8	05/20/15 14:21 / dck	05/19/15 09:40	ICPMS204-B_150520A	69	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C
Lab ID: H15050235-007
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 10:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	12	mg/L		1		A2540 D	05/18/15 14:36 / SR		L24 (14410200)_150518A	13	TSS150518A
Solids, Volatile Suspended	5	mg/L		1		A2540 E	05/19/15 09:53 / SR		MISC WC_150519A	12	150519A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	94	mg/L		4		A2320 B	05/19/15 13:10 / SR		PHSC_101-H_150519A	86	R106225
Bicarbonate as HCO3	110	mg/L		4		A2320 B	05/19/15 13:10 / SR		PHSC_101-H_150519A	86	R106225
Chloride	43	mg/L		1		E300.0	05/20/15 13:35 / SR		IC102-H_150520A	25	R106295
Sulfate	81	mg/L		1		E300.0	05/20/15 13:35 / SR		IC102-H_150520A	25	R106295
Hardness as CaCO3	182	mg/L		1		A2340 B	05/19/15 10:52 / abb		CALC_150521B	146	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	6.2	mg/L		0.5		A5310 C	05/23/15 03:54 / eli-c		SUB-C199713	36	C_R199713
NUTRIENTS											
Nitrogen, Ammonia as N	0.41	mg/L		0.05		E350.1	05/19/15 15:23 / cm		FIA203-HE_150519C	119	R106261
Nitrogen, Nitrate+Nitrite as N	1.61	mg/L		0.02		E353.2	05/19/15 10:13 / cm		FIA203-HE_150519A	30	R106232
Nitrogen, Total	2.83	mg/L	D	0.06		A4500 N-C	05/22/15 09:39 / cm	05/21/15 10:27	FIA203-HE_150522A	14	29018
Phosphorus, Total as P	0.365	mg/L		0.003		E365.1	05/19/15 13:18 / cm	05/19/15 09:49	FIA202-HE_150519B	25	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Arsenic	0.006	mg/L		0.001		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Barium	0.038	mg/L		0.003		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 10:52 / sld		ICP2-HE_150519A	29	R106247
Cadmium	0.00023	mg/L		0.00003		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Calcium	54	mg/L		1		E200.7	05/19/15 10:52 / sld		ICP2-HE_150519A	29	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Copper	0.014	mg/L		0.001		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Iron	0.11	mg/L		0.02		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C
Lab ID: H15050235-007
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 10:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	0.0003	mg/L		0.0003		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Magnesium	12	mg/L		1		E200.7	05/19/15 10:52 / sld		ICP2-HE_150519A	29	R106247
Manganese	0.307	mg/L		0.001		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 13:07 / rgk	05/19/15 07:39	HGCV202-H_150520A	50	28978
Molybdenum	0.005	mg/L		0.005		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Potassium	5	mg/L		1		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Sodium	29	mg/L		1		E200.7	05/19/15 10:52 / sld		ICP2-HE_150519A	29	R106247
Uranium	0.0040	mg/L		0.0002		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
Zinc	0.091	mg/L		0.008		E200.8	05/20/15 14:24 / dck		ICPMS204-B_150520A	70	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.179	mg/L		0.009		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Arsenic	0.007	mg/L		0.001		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Barium	0.040	mg/L		0.003		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 15:49 / sld	05/19/15 09:40	ICP2-HE_150520A	77	28985
Cadmium	0.00048	mg/L		0.00003		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Calcium	54	mg/L		1		E200.7	05/20/15 15:49 / sld	05/19/15 09:40	ICP2-HE_150520A	77	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Copper	0.028	mg/L		0.001		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Iron	0.49	mg/L		0.02		E200.7	05/20/15 15:49 / sld	05/19/15 09:40	ICP2-HE_150520A	77	28985
Lead	0.0020	mg/L		0.0003		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Magnesium	12	mg/L		1		E200.7	05/20/15 15:49 / sld	05/19/15 09:40	ICP2-HE_150520A	77	28985
Manganese	0.352	mg/L		0.001		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Mercury	8.8E-06	mg/L		5E-06		E245.1	05/20/15 13:11 / rgk	05/19/15 07:39	HGCV202-H_150520A	51	28978
Molybdenum	0.006	mg/L		0.005		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C
Lab ID: H15050235-007
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 10:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Potassium	6	mg/L		1		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Sodium	29	mg/L		1		E200.7	05/20/15 15:49 / sld	05/19/15 09:40	ICP2-HE_150520A	77	28985
Uranium	0.0043	mg/L		0.0002		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985
Zinc	0.122	mg/L		0.008		E200.8	05/20/15 14:27 / dck	05/19/15 09:40	ICPMS204-B_150520A	71	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D
Lab ID: H15050235-008
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 09:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	19	mg/L	D	2		A2540 D	05/18/15 14:36 / SR		L24 (14410200)_150518A	14	TSS150518A
Solids, Volatile Suspended	7	mg/L		1		A2540 E	05/19/15 09:53 / SR		MISC WC_150519A	13	150519A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	100	mg/L		4		A2320 B	05/19/15 13:16 / SR		PHSC_101-H_150519A	88	R106225
Bicarbonate as HCO3	130	mg/L		4		A2320 B	05/19/15 13:16 / SR		PHSC_101-H_150519A	88	R106225
Chloride	34	mg/L		1		E300.0	05/20/15 13:47 / SR		IC102-H_150520A	26	R106295
Sulfate	72	mg/L		1		E300.0	05/20/15 13:47 / SR		IC102-H_150520A	26	R106295
Hardness as CaCO3	169	mg/L		1		A2340 B	05/19/15 10:56 / abb		CALC_150521B	157	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	7.7	mg/L		0.5		A5310 C	05/23/15 04:10 / eli-c		SUB-C199713	37	C_R199713
NUTRIENTS											
Nitrogen, Ammonia as N	0.67	mg/L		0.05		E350.1	05/19/15 15:27 / cm		FIA203-HE_150519C	122	R106261
Nitrogen, Nitrate+Nitrite as N	1.28	mg/L		0.02		E353.2	05/19/15 10:14 / cm		FIA203-HE_150519A	31	R106232
Nitrogen, Total	2.85	mg/L	D	0.06		A4500 N-C	05/22/15 09:40 / cm	05/21/15 10:27	FIA203-HE_150522A	15	29018
Phosphorus, Total as P	0.389	mg/L		0.003		E365.1	05/21/15 13:46 / cm	05/19/15 09:49	FIA202-HE_150521B	14	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Arsenic	0.010	mg/L		0.001		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Barium	0.037	mg/L		0.003		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 10:56 / sld		ICP2-HE_150519A	30	R106247
Cadmium	0.00019	mg/L		0.00003		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Calcium	50	mg/L		1		E200.7	05/19/15 10:56 / sld		ICP2-HE_150519A	30	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Copper	0.012	mg/L		0.001		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Iron	0.11	mg/L		0.02		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D
Lab ID: H15050235-008
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 09:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	0.0003	mg/L		0.0003		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Magnesium	11	mg/L		1		E200.7	05/19/15 10:56 / sld		ICP2-HE_150519A	30	R106247
Manganese	0.283	mg/L		0.001		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 13:34 / rgk	05/19/15 07:42	HGCV202-H_150520A	56	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Potassium	6	mg/L		1		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Sodium	30	mg/L		1		E200.7	05/19/15 10:56 / sld		ICP2-HE_150519A	30	R106247
Uranium	0.0036	mg/L		0.0002		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
Zinc	0.091	mg/L		0.008		E200.8	05/20/15 14:31 / dck		ICPMS204-B_150520A	72	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.388	mg/L		0.009		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985
Antimony	ND	mg/L		0.0005		E200.8	05/21/15 12:36 / dck	05/19/15 09:40	ICPMS204-B_150521B	35	28985
Arsenic	0.010	mg/L		0.001		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985
Barium	0.043	mg/L		0.003		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 16:04 / sld	05/19/15 09:40	ICP2-HE_150520A	80	28985
Cadmium	0.00041	mg/L		0.00003		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985
Calcium	49	mg/L		1		E200.7	05/20/15 16:04 / sld	05/19/15 09:40	ICP2-HE_150520A	80	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985
Copper	0.025	mg/L		0.001		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985
Iron	0.64	mg/L		0.02		E200.7	05/20/15 16:04 / sld	05/19/15 09:40	ICP2-HE_150520A	80	28985
Lead	0.0026	mg/L		0.0003		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985
Magnesium	11	mg/L		1		E200.7	05/20/15 16:04 / sld	05/19/15 09:40	ICP2-HE_150520A	80	28985
Manganese	0.341	mg/L		0.001		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985
Mercury	0.000012	mg/L		5E-06		E245.1	05/20/15 13:45 / rgk	05/19/15 07:42	HGCV202-H_150520A	59	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D
Lab ID: H15050235-008
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 09:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985
Potassium	6	mg/L		1		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985
Sodium	29	mg/L		1		E200.7	05/20/15 16:04 / sld	05/19/15 09:40	ICP2-HE_150520A	80	28985
Uranium	0.0038	mg/L		0.0002		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985
Zinc	0.121	mg/L		0.008		E200.8	05/20/15 14:34 / dck	05/19/15 09:40	ICPMS204-B_150520A	73	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D, Field Duplicate #2
Lab ID: H15050235-009
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 09:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	19	mg/L		1		A2540 D	05/18/15 14:37 / SR		L24 (14410200)_150518A	16	TSS150518A
Solids, Volatile Suspended	6	mg/L		1		A2540 E	05/19/15 09:53 / SR		MISC WC_150519A	15	150519A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	100	mg/L		4		A2320 B	05/19/15 13:22 / SR		PHSC_101-H_150519A	90	R106225
Bicarbonate as HCO3	130	mg/L		4		A2320 B	05/19/15 13:22 / SR		PHSC_101-H_150519A	90	R106225
Chloride	35	mg/L		1		E300.0	05/20/15 13:58 / SR		IC102-H_150520A	27	R106295
Sulfate	72	mg/L		1		E300.0	05/20/15 13:58 / SR		IC102-H_150520A	27	R106295
Hardness as CaCO3	169	mg/L		1		A2340 B	05/19/15 11:18 / abb		CALC_150521B	168	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	7.7	mg/L		0.5		A5310 C	05/23/15 05:02 / eli-c		SUB-C199713	40	C_R199713
NUTRIENTS											
Nitrogen, Ammonia as N	0.66	mg/L		0.05		E350.1	05/19/15 15:28 / cm		FIA203-HE_150519C	123	R106261
Nitrogen, Nitrate+Nitrite as N	1.29	mg/L		0.02		E353.2	05/19/15 10:15 / cm		FIA203-HE_150519A	32	R106232
Nitrogen, Total	2.87	mg/L	D	0.06		A4500 N-C	05/22/15 09:41 / cm	05/21/15 10:27	FIA203-HE_150522A	16	29018
Phosphorus, Total as P	0.410	mg/L		0.003		E365.1	05/21/15 13:47 / cm	05/19/15 09:49	FIA202-HE_150521B	15	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Arsenic	0.010	mg/L		0.001		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Barium	0.037	mg/L		0.003		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 11:18 / sld		ICP2-HE_150519A	36	R106247
Cadmium	0.00019	mg/L		0.00003		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Calcium	49	mg/L		1		E200.7	05/19/15 11:18 / sld		ICP2-HE_150519A	36	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Copper	0.013	mg/L		0.001		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Iron	0.11	mg/L		0.02		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D, Field Duplicate #2
Lab ID: H15050235-009
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 09:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	0.0003	mg/L		0.0003		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Magnesium	11	mg/L		1		E200.7	05/19/15 11:18 / sld		ICP2-HE_150519A	36	R106247
Manganese	0.285	mg/L		0.001		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Mercury	8.9E-06	mg/L		5E-06		E245.1	05/20/15 13:49 / rgk	05/19/15 07:42	HGCV202-H_150520A	60	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Potassium	6	mg/L		1		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Sodium	30	mg/L		1		E200.7	05/19/15 11:18 / sld		ICP2-HE_150519A	36	R106247
Uranium	0.0036	mg/L		0.0002		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
Zinc	0.094	mg/L		0.008		E200.8	05/20/15 14:57 / dck		ICPMS204-B_150520A	80	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.358	mg/L		0.009		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Arsenic	0.010	mg/L		0.001		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Barium	0.042	mg/L		0.003		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 16:19 / sld	05/19/15 09:40	ICP2-HE_150520A	84	28985
Cadmium	0.00038	mg/L		0.00003		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Calcium	48	mg/L		1		E200.7	05/20/15 16:19 / sld	05/19/15 09:40	ICP2-HE_150520A	84	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Copper	0.025	mg/L		0.001		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Iron	0.60	mg/L		0.02		E200.7	05/20/15 16:19 / sld	05/19/15 09:40	ICP2-HE_150520A	84	28985
Lead	0.0024	mg/L		0.0003		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Magnesium	10	mg/L		1		E200.7	05/20/15 16:19 / sld	05/19/15 09:40	ICP2-HE_150520A	84	28985
Manganese	0.329	mg/L		0.001		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Mercury	0.000012	mg/L		5E-06		E245.1	05/20/15 13:53 / rgk	05/19/15 07:42	HGCV202-H_150520A	61	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D, Field Duplicate #2
Lab ID: H15050235-009
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 09:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Potassium	6	mg/L		1		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Sodium	29	mg/L		1		E200.7	05/20/15 16:19 / sld	05/19/15 09:40	ICP2-HE_150520A	84	28985
Uranium	0.0038	mg/L		0.0002		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985
Zinc	0.116	mg/L		0.008		E200.8	05/20/15 15:00 / dck	05/19/15 09:40	ICPMS204-B_150520A	81	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13
Lab ID: H15050235-010
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 16:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	24	mg/L		1		A2540 D	05/18/15 14:38 / SR		L24 (14410200)_150518A	17	TSS150518A
Solids, Volatile Suspended	7	mg/L		1		A2540 E	05/19/15 11:07 / SR		MISC WC_150519B	2	150519B-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	95	mg/L		4		A2320 B	05/19/15 13:27 / SR		PHSC_101-H_150519A	92	R106225
Bicarbonate as HCO3	110	mg/L		4		A2320 B	05/19/15 13:27 / SR		PHSC_101-H_150519A	92	R106225
Chloride	32	mg/L		1		E300.0	05/20/15 14:09 / SR		IC102-H_150520A	28	R106295
Sulfate	68	mg/L		1		E300.0	05/20/15 14:09 / SR		IC102-H_150520A	28	R106295
Hardness as CaCO3	164	mg/L		1		A2340 B	05/19/15 11:22 / abb		CALC_150521B	179	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	6.5	mg/L		0.5		A5310 C	05/23/15 05:19 / eli-c		SUB-C199713	41	C_R199713
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/19/15 15:29 / cm		FIA203-HE_150519C	124	R106261
Nitrogen, Nitrate+Nitrite as N	1.34	mg/L		0.02		E353.2	05/19/15 10:17 / cm		FIA203-HE_150519A	33	R106232
Nitrogen, Total	1.17	mg/L		0.05		A4500 N-C	05/22/15 10:06 / cm	05/21/15 10:27	FIA203-HE_150522A	37	29018
Phosphorus, Total as P	0.293	mg/L		0.003		E365.1	05/21/15 13:48 / cm	05/19/15 09:49	FIA202-HE_150521B	16	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Arsenic	0.008	mg/L		0.001		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Barium	0.029	mg/L		0.003		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 11:22 / sld		ICP2-HE_150519A	37	R106247
Cadmium	0.00015	mg/L		0.00003		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Calcium	48	mg/L		1		E200.7	05/19/15 11:22 / sld		ICP2-HE_150519A	37	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Copper	0.014	mg/L		0.001		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Iron	0.12	mg/L		0.02		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13
Lab ID: H15050235-010
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 16:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	0.0003	mg/L		0.0003		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Magnesium	11	mg/L		1		E200.7	05/19/15 11:22 / sld		ICP2-HE_150519A	37	R106247
Manganese	0.148	mg/L		0.001		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 13:57 / rgk	05/19/15 07:42	HGCV202-H_150520A	62	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Potassium	5	mg/L		1		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Sodium	27	mg/L		1		E200.7	05/19/15 11:22 / sld		ICP2-HE_150519A	37	R106247
Uranium	0.0041	mg/L		0.0002		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
Zinc	0.024	mg/L		0.008		E200.8	05/20/15 15:03 / dck		ICPMS204-B_150520A	82	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.292	mg/L		0.009		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Arsenic	0.009	mg/L		0.001		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Barium	0.035	mg/L		0.003		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 16:23 / sld	05/19/15 09:40	ICP2-HE_150520A	85	28985
Cadmium	0.00039	mg/L		0.00003		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Calcium	47	mg/L		1		E200.7	05/20/15 16:23 / sld	05/19/15 09:40	ICP2-HE_150520A	85	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Copper	0.027	mg/L		0.001		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Iron	0.64	mg/L		0.02		E200.7	05/20/15 16:23 / sld	05/19/15 09:40	ICP2-HE_150520A	85	28985
Lead	0.0028	mg/L		0.0003		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Magnesium	10	mg/L		1		E200.7	05/20/15 16:23 / sld	05/19/15 09:40	ICP2-HE_150520A	85	28985
Manganese	0.237	mg/L		0.001		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Mercury	0.000016	mg/L		5E-06		E245.1	05/20/15 14:00 / rgk	05/19/15 07:42	HGCV202-H_150520A	63	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13
Lab ID: H15050235-010
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 16:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Potassium	5	mg/L		1		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Sodium	27	mg/L		1		E200.7	05/20/15 16:23 / sld	05/19/15 09:40	ICP2-HE_150520A	85	28985
Uranium	0.0044	mg/L		0.0002		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985
Zinc	0.079	mg/L		0.008		E200.8	05/20/15 15:07 / dck	05/19/15 09:40	ICPMS204-B_150520A	83	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #1
Lab ID: H15050235-011
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 16:30
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	ND	mg/L		1		A2540 D	05/18/15 14:38 / SR		L24 (14410200)_150518A	18	TSS150518A
Solids, Volatile Suspended	ND	mg/L		1		A2540 E	05/19/15 11:07 / SR		MISC WC_150519B	3	150519B-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	ND	mg/L		4		A2320 B	05/19/15 13:34 / SR		PHSC_101-H_150519A	94	R106225
Bicarbonate as HCO3	ND	mg/L		4		A2320 B	05/19/15 13:34 / SR		PHSC_101-H_150519A	94	R106225
Chloride	ND	mg/L		1		E300.0	05/20/15 14:20 / SR		IC102-H_150520A	29	R106295
Sulfate	ND	mg/L		1		E300.0	05/20/15 14:20 / SR		IC102-H_150520A	29	R106295
Hardness as CaCO3	ND	mg/L		1		A2340 B	05/26/15 07:32 / sld		WATERCALC_150526A	3	R106355
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	ND	mg/L		0.5		A5310 C	05/23/15 05:33 / eli-c		SUB-C199713	42	C_R199713
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/19/15 15:30 / cm		FIA203-HE_150519C	125	R106261
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.02		E353.2	05/19/15 10:18 / cm		FIA203-HE_150519A	34	R106232
Nitrogen, Total	ND	mg/L		0.05		A4500 N-C	05/22/15 09:43 / cm	05/21/15 10:27	FIA203-HE_150522A	18	29018
Phosphorus, Total as P	ND	mg/L		0.003		E365.1	05/21/15 13:49 / cm	05/19/15 09:49	FIA202-HE_150521B	17	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Arsenic	ND	mg/L		0.001		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Barium	ND	mg/L		0.003		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 11:26 / sld		ICP2-HE_150519A	38	R106247
Cadmium	ND	mg/L		0.00003		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Calcium	ND	mg/L		1		E200.7	05/19/15 11:26 / sld		ICP2-HE_150519A	38	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Copper	ND	mg/L		0.001		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Iron	ND	mg/L		0.02		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #1
Lab ID: H15050235-011
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 16:30
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Magnesium	ND	mg/L		1		E200.7	05/19/15 11:26 / sld		ICP2-HE_150519A	38	R106247
Manganese	ND	mg/L		0.001		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 14:04 / rgk	05/19/15 07:42	HGCV202-H_150520A	64	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Potassium	ND	mg/L		1		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Sodium	ND	mg/L		1		E200.7	05/19/15 11:26 / sld		ICP2-HE_150519A	38	R106247
Uranium	ND	mg/L		0.0002		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
Zinc	0.009	mg/L		0.008		E200.8	05/20/15 15:10 / dck		ICPMS204-B_150520A	84	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Arsenic	ND	mg/L		0.001		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Barium	ND	mg/L		0.003		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 16:26 / sld	05/19/15 09:40	ICP2-HE_150520A	86	28985
Cadmium	ND	mg/L		0.00003		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Calcium	ND	mg/L		1		E200.7	05/20/15 16:26 / sld	05/19/15 09:40	ICP2-HE_150520A	86	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Copper	ND	mg/L		0.001		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Iron	ND	mg/L		0.02		E200.7	05/20/15 16:26 / sld	05/19/15 09:40	ICP2-HE_150520A	86	28985
Lead	ND	mg/L		0.0003		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Magnesium	ND	mg/L		1		E200.7	05/20/15 16:26 / sld	05/19/15 09:40	ICP2-HE_150520A	86	28985
Manganese	ND	mg/L		0.001		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 14:08 / rgk	05/19/15 07:42	HGCV202-H_150520A	65	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #1
Lab ID: H15050235-011
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 16:30
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Potassium	ND	mg/L		1		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Sodium	ND	mg/L		1		E200.7	05/20/15 16:26 / sld	05/19/15 09:40	ICP2-HE_150520A	86	28985
Uranium	ND	mg/L		0.0002		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985
Zinc	ND	mg/L		0.008		E200.8	05/20/15 15:13 / dck	05/19/15 09:40	ICPMS204-B_150520A	85	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14
Lab ID: H15050235-012
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 15:30
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	22	mg/L		1		A2540 D	05/18/15 14:38 / SR		L24 (14410200)_150518A	19	TSS150518A
Solids, Volatile Suspended	7	mg/L		1		A2540 E	05/19/15 11:07 / SR		MISC WC_150519B	4	150519B-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	93	mg/L		4		A2320 B	05/19/15 13:38 / SR		PHSC_101-H_150519A	96	R106225
Bicarbonate as HCO3	99	mg/L		4		A2320 B	05/19/15 13:38 / SR		PHSC_101-H_150519A	96	R106225
Chloride	32	mg/L		1		E300.0	05/20/15 15:27 / SR		IC102-H_150520A	35	R106295
Sulfate	69	mg/L		1		E300.0	05/20/15 15:27 / SR		IC102-H_150520A	35	R106295
Hardness as CaCO3	161	mg/L		1		A2340 B	05/19/15 11:30 / abb		CALC_150521B	201	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	6.0	mg/L		0.5		A5310 C	05/23/15 05:53 / eli-c		SUB-C199713	43	C_R199713
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/19/15 15:34 / cm		FIA203-HE_150519C	128	R106261
Nitrogen, Nitrate+Nitrite as N	1.10	mg/L		0.02		E353.2	05/19/15 10:21 / cm		FIA203-HE_150519A	37	R106232
Nitrogen, Total	1.85	mg/L		0.05		A4500 N-C	05/22/15 09:47 / cm	05/21/15 10:27	FIA203-HE_150522A	21	29018
Phosphorus, Total as P	0.288	mg/L		0.003		E365.1	05/21/15 13:52 / cm	05/19/15 09:49	FIA202-HE_150521B	20	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Arsenic	0.008	mg/L		0.001		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Barium	0.028	mg/L		0.003		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 11:30 / sld		ICP2-HE_150519A	39	R106247
Cadmium	0.00012	mg/L		0.00003		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Calcium	47	mg/L		1		E200.7	05/19/15 11:30 / sld		ICP2-HE_150519A	39	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Copper	0.012	mg/L		0.001		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Iron	0.11	mg/L		0.02		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14
Lab ID: H15050235-012
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 15:30
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	0.0003	mg/L		0.0003		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Magnesium	10	mg/L		1		E200.7	05/19/15 11:30 / sld		ICP2-HE_150519A	39	R106247
Manganese	0.135	mg/L		0.001		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 14:12 / rgk	05/19/15 07:42	HGCV202-H_150520A	66	28979
Molybdenum	0.005	mg/L		0.005		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Potassium	5	mg/L		1		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Sodium	26	mg/L		1		E200.7	05/19/15 11:30 / sld		ICP2-HE_150519A	39	R106247
Uranium	0.0043	mg/L		0.0002		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
Zinc	0.019	mg/L		0.008		E200.8	05/20/15 15:17 / dck		ICPMS204-B_150520A	86	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.253	mg/L		0.009		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Arsenic	0.008	mg/L		0.001		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Barium	0.032	mg/L		0.003		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 16:30 / sld	05/19/15 09:40	ICP2-HE_150520A	87	28985
Cadmium	0.00034	mg/L		0.00003		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Calcium	47	mg/L		1		E200.7	05/20/15 16:30 / sld	05/19/15 09:40	ICP2-HE_150520A	87	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Copper	0.024	mg/L		0.001		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Iron	0.58	mg/L		0.02		E200.7	05/20/15 16:30 / sld	05/19/15 09:40	ICP2-HE_150520A	87	28985
Lead	0.0023	mg/L		0.0003		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Magnesium	10	mg/L		1		E200.7	05/20/15 16:30 / sld	05/19/15 09:40	ICP2-HE_150520A	87	28985
Manganese	0.212	mg/L		0.001		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Mercury	0.000012	mg/L		5E-06		E245.1	05/20/15 14:16 / rgk	05/19/15 07:42	HGCV202-H_150520A	67	28979
Molybdenum	0.005	mg/L		0.005		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14
Lab ID: H15050235-012
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 15:30
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Potassium	5	mg/L		1		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Sodium	27	mg/L		1		E200.7	05/20/15 16:30 / sld	05/19/15 09:40	ICP2-HE_150520A	87	28985
Uranium	0.0046	mg/L		0.0002		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985
Zinc	0.074	mg/L		0.008		E200.8	05/20/15 15:20 / dck	05/19/15 09:40	ICPMS204-B_150520A	87	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A
Lab ID: H15050235-013
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 14:15
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	17	mg/L		1		A2540 D	05/18/15 14:38 / SR		L24 (14410200)_150518A	20	TSS150518A
Solids, Volatile Suspended	7	mg/L		1		A2540 E	05/19/15 11:08 / SR		MISC WC_150519B	5	150519B-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	97	mg/L		4		A2320 B	05/19/15 13:45 / SR		PHSC_101-H_150519A	98	R106225
Bicarbonate as HCO3	100	mg/L		4		A2320 B	05/19/15 13:45 / SR		PHSC_101-H_150519A	98	R106225
Chloride	38	mg/L		1		E300.0	05/20/15 15:38 / SR		IC102-H_150520A	36	R106295
Sulfate	75	mg/L		1		E300.0	05/20/15 15:38 / SR		IC102-H_150520A	36	R106295
Hardness as CaCO3	172	mg/L		1		A2340 B	05/19/15 11:34 / abb		CALC_150521B	212	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	6.1	mg/L		0.5		A5310 C	05/24/15 05:27 / eli-c		SUB-C199714	3	C_R199714
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/19/15 15:35 / cm		FIA203-HE_150519C	129	R106261
Nitrogen, Nitrate+Nitrite as N	1.29	mg/L		0.02		E353.2	05/19/15 10:22 / cm		FIA203-HE_150519A	38	R106232
Nitrogen, Total	1.93	mg/L	D	0.06		A4500 N-C	05/22/15 09:59 / cm	05/21/15 10:27	FIA203-HE_150522A	31	29018
Phosphorus, Total as P	0.320	mg/L		0.003		E365.1	05/21/15 13:53 / cm	05/19/15 09:49	FIA202-HE_150521B	21	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Arsenic	0.008	mg/L		0.001		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Barium	0.031	mg/L		0.003		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 11:34 / sld		ICP2-HE_150519A	40	R106247
Cadmium	0.00022	mg/L		0.00003		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Calcium	51	mg/L		1		E200.7	05/19/15 11:34 / sld		ICP2-HE_150519A	40	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Copper	0.013	mg/L		0.001		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Iron	0.09	mg/L		0.02		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A
Lab ID: H15050235-013
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 14:15
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	0.0004	mg/L		0.0003		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Magnesium	11	mg/L		1		E200.7	05/19/15 11:34 / sld		ICP2-HE_150519A	40	R106247
Manganese	0.142	mg/L		0.001		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 14:27 / rgk	05/19/15 07:42	HGCV202-H_150520A	70	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Potassium	5	mg/L		1		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Sodium	30	mg/L		1		E200.7	05/19/15 11:34 / sld		ICP2-HE_150519A	40	R106247
Uranium	0.0040	mg/L		0.0002		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
Zinc	0.024	mg/L		0.008		E200.8	05/20/15 15:23 / dck		ICPMS204-B_150520A	88	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.206	mg/L		0.009		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Arsenic	0.009	mg/L		0.001		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Barium	0.035	mg/L		0.003		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 16:34 / sld	05/19/15 09:40	ICP2-HE_150520A	88	28985
Cadmium	0.00040	mg/L		0.00003		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Calcium	51	mg/L		1		E200.7	05/20/15 16:34 / sld	05/19/15 09:40	ICP2-HE_150520A	88	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Copper	0.022	mg/L		0.001		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Iron	0.42	mg/L		0.02		E200.7	05/20/15 16:34 / sld	05/19/15 09:40	ICP2-HE_150520A	88	28985
Lead	0.0019	mg/L		0.0003		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Magnesium	11	mg/L		1		E200.7	05/20/15 16:34 / sld	05/19/15 09:40	ICP2-HE_150520A	88	28985
Manganese	0.233	mg/L		0.001		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Mercury	9.1E-06	mg/L		5E-06		E245.1	05/20/15 14:38 / rgk	05/19/15 07:42	HGCV202-H_150520A	73	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A
Lab ID: H15050235-013
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 14:15
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Potassium	6	mg/L		1		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Sodium	30	mg/L		1		E200.7	05/20/15 16:34 / sld	05/19/15 09:40	ICP2-HE_150520A	88	28985
Uranium	0.0043	mg/L		0.0002		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985
Zinc	0.076	mg/L		0.008		E200.8	05/20/15 15:26 / dck	05/19/15 09:40	ICPMS204-B_150520A	89	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B
Lab ID: H15050235-014
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 12:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	12	mg/L		1		A2540 D	05/18/15 14:39 / SR		L24 (14410200)_150518A	21	TSS150518A
Solids, Volatile Suspended	5	mg/L		1		A2540 E	05/19/15 11:08 / SR		MISC WC_150519B	6	150519B-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	85	mg/L		4		A2320 B	05/19/15 16:33 / SR		PHSC_101-H_150519A	143	R106225
Bicarbonate as HCO3	95	mg/L		4		A2320 B	05/19/15 16:33 / SR		PHSC_101-H_150519A	143	R106225
Chloride	18	mg/L		1		E300.0	05/20/15 15:49 / SR		IC102-H_150520A	37	R106295
Sulfate	48	mg/L		1		E300.0	05/20/15 15:49 / SR		IC102-H_150520A	37	R106295
Hardness as CaCO3	136	mg/L		1		A2340 B	05/19/15 11:37 / abb		CALC_150521B	223	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	5.4	mg/L		0.5		A5310 C	05/24/15 05:42 / eli-c		SUB-C199714	4	C_R199714
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/19/15 15:36 / cm		FIA203-HE_150519C	130	R106261
Nitrogen, Nitrate+Nitrite as N	0.68	mg/L		0.02		E353.2	05/19/15 10:24 / cm		FIA203-HE_150519A	39	R106232
Nitrogen, Total	1.20	mg/L		0.05		A4500 N-C	05/22/15 09:49 / cm	05/21/15 10:27	FIA203-HE_150522A	23	29018
Phosphorus, Total as P	0.159	mg/L		0.003		E365.1	05/21/15 13:54 / cm	05/19/15 09:49	FIA202-HE_150521B	22	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Arsenic	0.006	mg/L		0.001		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Barium	0.026	mg/L		0.003		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 11:37 / sld		ICP2-HE_150519A	41	R106247
Cadmium	0.00010	mg/L		0.00003		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Calcium	41	mg/L		1		E200.7	05/19/15 11:37 / sld		ICP2-HE_150519A	41	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Copper	0.007	mg/L		0.001		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Iron	0.05	mg/L		0.02		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B
Lab ID: H15050235-014
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 12:45 **DateReceived:** 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Magnesium	8	mg/L		1		E200.7	05/19/15 11:37 / sld		ICP2-HE_150519A	41	R106247
Manganese	0.088	mg/L		0.001		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 14:42 / rgk	05/19/15 07:42	HGCV202-H_150520A	74	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Potassium	3	mg/L		1		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Sodium	16	mg/L		1		E200.7	05/19/15 11:37 / sld		ICP2-HE_150519A	41	R106247
Uranium	0.0021	mg/L		0.0002		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
Zinc	0.016	mg/L		0.008		E200.8	05/20/15 15:40 / dck		ICPMS204-B_150520A	93	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.252	mg/L		0.009		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Arsenic	0.006	mg/L		0.001		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Barium	0.028	mg/L		0.003		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 16:38 / sld	05/19/15 09:40	ICP2-HE_150520A	89	28985
Cadmium	0.00022	mg/L		0.00003		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Calcium	40	mg/L		1		E200.7	05/20/15 16:38 / sld	05/19/15 09:40	ICP2-HE_150520A	89	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Copper	0.012	mg/L		0.001		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Iron	0.30	mg/L		0.02		E200.7	05/20/15 16:38 / sld	05/19/15 09:40	ICP2-HE_150520A	89	28985
Lead	0.0011	mg/L		0.0003		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Magnesium	8	mg/L		1		E200.7	05/20/15 16:38 / sld	05/19/15 09:40	ICP2-HE_150520A	89	28985
Manganese	0.131	mg/L		0.001		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Mercury	7.4E-06	mg/L		5E-06		E245.1	05/20/15 14:46 / rgk	05/19/15 07:42	HGCV202-H_150520A	75	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B
Lab ID: H15050235-014
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 12:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Potassium	4	mg/L		1		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Sodium	17	mg/L		1		E200.7	05/20/15 16:38 / sld	05/19/15 09:40	ICP2-HE_150520A	89	28985
Uranium	0.0023	mg/L		0.0002		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985
Zinc	0.039	mg/L		0.008		E200.8	05/20/15 15:43 / dck	05/19/15 09:40	ICPMS204-B_150520A	94	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B
Lab ID: H15050235-015
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 11:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	9	mg/L		1		A2540 D	05/18/15 14:39 / SR		L24 (14410200)_150518A	22	TSS150518A
Solids, Volatile Suspended	4	mg/L		1		A2540 E	05/19/15 11:08 / SR		MISC WC_150519B	7	150519B-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	86	mg/L		4		A2320 B	05/19/15 16:47 / SR		PHSC_101-H_150519A	147	R106225
Bicarbonate as HCO3	100	mg/L		4		A2320 B	05/19/15 16:47 / SR		PHSC_101-H_150519A	147	R106225
Chloride	17	mg/L		1		E300.0	05/20/15 16:00 / SR		IC102-H_150520A	38	R106295
Sulfate	48	mg/L		1		E300.0	05/20/15 16:00 / SR		IC102-H_150520A	38	R106295
Hardness as CaCO3	134	mg/L		1		A2340 B	05/19/15 11:41 / abb		CALC_150521B	234	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	5.6	mg/L		0.5		A5310 C	05/24/15 05:57 / eli-c		SUB-C199714	5	C_R199714
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/19/15 15:37 / cm		FIA203-HE_150519C	131	R106261
Nitrogen, Nitrate+Nitrite as N	0.69	mg/L		0.02		E353.2	05/19/15 10:25 / cm		FIA203-HE_150519A	40	R106232
Nitrogen, Total	1.18	mg/L		0.05		A4500 N-C	05/22/15 09:50 / cm	05/21/15 10:27	FIA203-HE_150522A	24	29018
Phosphorus, Total as P	0.152	mg/L		0.003		E365.1	05/21/15 13:55 / cm	05/19/15 09:49	FIA202-HE_150521B	23	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Arsenic	0.006	mg/L		0.001		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Barium	0.026	mg/L		0.003		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 11:41 / sld		ICP2-HE_150519A	42	R106247
Cadmium	0.00014	mg/L		0.00003		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Calcium	41	mg/L		1		E200.7	05/19/15 11:41 / sld		ICP2-HE_150519A	42	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Copper	0.008	mg/L		0.001		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Iron	0.05	mg/L		0.02		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B
Lab ID: H15050235-015
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 11:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Magnesium	8	mg/L		1		E200.7	05/19/15 11:41 / sld		ICP2-HE_150519A	42	R106247
Manganese	0.121	mg/L		0.001		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 14:50 / rgk	05/19/15 07:42	HGCV202-H_150520A	76	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Potassium	3	mg/L		1		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Sodium	16	mg/L		1		E200.7	05/19/15 11:41 / sld		ICP2-HE_150519A	42	R106247
Uranium	0.0019	mg/L		0.0002		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
Zinc	0.026	mg/L		0.008		E200.8	05/20/15 15:46 / dck		ICPMS204-B_150520A	95	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.212	mg/L		0.009		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Arsenic	0.006	mg/L		0.001		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Barium	0.027	mg/L		0.003		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 16:49 / sld	05/19/15 09:40	ICP2-HE_150520A	92	28985
Cadmium	0.00024	mg/L		0.00003		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Calcium	40	mg/L		1		E200.7	05/20/15 16:49 / sld	05/19/15 09:40	ICP2-HE_150520A	92	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Copper	0.013	mg/L		0.001		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Iron	0.26	mg/L		0.02		E200.7	05/20/15 16:49 / sld	05/19/15 09:40	ICP2-HE_150520A	92	28985
Lead	0.0009	mg/L		0.0003		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Magnesium	8	mg/L		1		E200.7	05/20/15 16:49 / sld	05/19/15 09:40	ICP2-HE_150520A	92	28985
Manganese	0.146	mg/L		0.001		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Mercury	7.6E-06	mg/L		5E-06		E245.1	05/20/15 14:54 / rgk	05/19/15 07:42	HGCV202-H_150520A	77	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B
Lab ID: H15050235-015
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 11:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Potassium	3	mg/L		1		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Sodium	17	mg/L		1		E200.7	05/20/15 16:49 / sld	05/19/15 09:40	ICP2-HE_150520A	92	28985
Uranium	0.0020	mg/L		0.0002		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985
Zinc	0.046	mg/L		0.008		E200.8	05/20/15 15:49 / dck	05/19/15 09:40	ICPMS204-B_150520A	96	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D
Lab ID: H15050235-016
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 10:15
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	17	mg/L		1		A2540 D	05/18/15 14:39 / SR		L24 (14410200)_150518A	23	TSS150518A
Solids, Volatile Suspended	6	mg/L		1		A2540 E	05/19/15 11:08 / SR		MISC WC_150519B	8	150519B-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	89	mg/L		4		A2320 B	05/19/15 16:53 / SR		PHSC_101-H_150519A	149	R106225
Bicarbonate as HCO3	110	mg/L		4		A2320 B	05/19/15 16:53 / SR		PHSC_101-H_150519A	149	R106225
Chloride	17	mg/L		1		E300.0	05/20/15 16:11 / SR		IC102-H_150520A	39	R106295
Sulfate	51	mg/L		1		E300.0	05/20/15 16:11 / SR		IC102-H_150520A	39	R106295
Hardness as CaCO3	137	mg/L		1		A2340 B	05/19/15 11:52 / abb		CALC_150521B	245	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	5.7	mg/L		0.5		A5310 C	05/24/15 06:13 / eli-c		SUB-C199714	6	C_R199714
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/19/15 15:39 / cm		FIA203-HE_150519C	132	R106261
Nitrogen, Nitrate+Nitrite as N	0.60	mg/L		0.02		E353.2	05/19/15 10:28 / cm		FIA203-HE_150519A	43	R106232
Nitrogen, Total	1.14	mg/L		0.05		A4500 N-C	05/22/15 09:52 / cm	05/21/15 10:27	FIA203-HE_150522A	25	29018
Phosphorus, Total as P	0.143	mg/L		0.003		E365.1	05/21/15 13:56 / cm	05/19/15 09:49	FIA202-HE_150521B	24	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Arsenic	0.006	mg/L		0.001		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Barium	0.026	mg/L		0.003		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 11:52 / sld		ICP2-HE_150519A	45	R106247
Cadmium	0.00013	mg/L		0.00003		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Calcium	41	mg/L		1		E200.7	05/19/15 11:52 / sld		ICP2-HE_150519A	45	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Copper	0.010	mg/L		0.001		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Iron	0.05	mg/L		0.02		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D
Lab ID: H15050235-016
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 10:15
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Magnesium	8	mg/L		1		E200.7	05/19/15 11:52 / sld		ICP2-HE_150519A	45	R106247
Manganese	0.112	mg/L		0.001		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 14:57 / rgk	05/19/15 07:42	HGCV202-H_150520A	78	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Potassium	3	mg/L		1		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Sodium	17	mg/L		1		E200.7	05/19/15 11:52 / sld		ICP2-HE_150519A	45	R106247
Uranium	0.0022	mg/L		0.0002		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
Zinc	0.031	mg/L		0.008		E200.8	05/20/15 15:53 / dck		ICPMS204-B_150520A	97	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.373	mg/L		0.009		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985
Antimony	ND	mg/L		0.0005		E200.8	05/21/15 12:40 / dck	05/19/15 09:40	ICPMS204-B_150521B	36	28985
Arsenic	0.006	mg/L		0.001		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985
Barium	0.029	mg/L		0.003		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 16:53 / sld	05/19/15 09:40	ICP2-HE_150520A	93	28985
Cadmium	0.00030	mg/L		0.00003		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985
Calcium	42	mg/L		1		E200.7	05/20/15 16:53 / sld	05/19/15 09:40	ICP2-HE_150520A	93	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985
Copper	0.020	mg/L		0.001		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985
Iron	0.43	mg/L		0.02		E200.7	05/20/15 16:53 / sld	05/19/15 09:40	ICP2-HE_150520A	93	28985
Lead	0.0020	mg/L		0.0003		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985
Magnesium	8	mg/L		1		E200.7	05/20/15 16:53 / sld	05/19/15 09:40	ICP2-HE_150520A	93	28985
Manganese	0.168	mg/L		0.001		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985
Mercury	0.000015	mg/L		5E-06		E245.1	05/20/15 15:01 / rgk	05/19/15 07:42	HGCV202-H_150520A	79	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D
Lab ID: H15050235-016
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 10:15
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985
Potassium	4	mg/L		1		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985
Silver	0.0004	mg/L		0.0002		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985
Sodium	18	mg/L		1		E200.7	05/20/15 16:53 / sld	05/19/15 09:40	ICP2-HE_150520A	93	28985
Uranium	0.0025	mg/L		0.0002		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985
Zinc	0.067	mg/L		0.008		E200.8	05/20/15 16:06 / dck	05/19/15 09:40	ICPMS204-B_150520A	101	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D, Field Duplicate #1
Lab ID: H15050235-017
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 10:15
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	17	mg/L		1		A2540 D	05/18/15 14:40 / SR		L24 (14410200)_150518A	24	TSS150518A
Solids, Volatile Suspended	6	mg/L		1		A2540 E	05/19/15 11:08 / SR		MISC WC_150519B	9	150519B-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	88	mg/L		4		A2320 B	05/19/15 16:59 / SR		PHSC_101-H_150519A	151	R106225
Bicarbonate as HCO3	110	mg/L		4		A2320 B	05/19/15 16:59 / SR		PHSC_101-H_150519A	151	R106225
Chloride	17	mg/L		1		E300.0	05/20/15 16:22 / SR		IC102-H_150520A	40	R106295
Sulfate	51	mg/L		1		E300.0	05/20/15 16:22 / SR		IC102-H_150520A	40	R106295
Hardness as CaCO3	140	mg/L		1		A2340 B	05/19/15 11:56 / abb		CALC_150521B	256	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	5.7	mg/L		0.5		A5310 C	05/24/15 06:29 / eli-c		SUB-C199714	7	C_R199714
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/19/15 15:40 / cm		FIA203-HE_150519C	133	R106261
Nitrogen, Nitrate+Nitrite as N	0.59	mg/L		0.02		E353.2	05/19/15 10:32 / cm		FIA203-HE_150519A	46	R106232
Nitrogen, Total	1.14	mg/L		0.05		A4500 N-C	05/22/15 09:55 / cm	05/21/15 10:27	FIA203-HE_150522A	28	29018
Phosphorus, Total as P	0.133	mg/L		0.003		E365.1	05/21/15 13:57 / cm	05/19/15 09:49	FIA202-HE_150521B	25	28987
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Arsenic	0.006	mg/L		0.001		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Barium	0.026	mg/L		0.003		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 11:56 / sld		ICP2-HE_150519A	46	R106247
Cadmium	0.00014	mg/L		0.00003		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Calcium	42	mg/L		1		E200.7	05/19/15 11:56 / sld		ICP2-HE_150519A	46	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Copper	0.010	mg/L		0.001		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Iron	0.05	mg/L		0.02		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D, Field Duplicate #1
Lab ID: H15050235-017
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 10:15 **DateReceived:** 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Magnesium	8	mg/L		1		E200.7	05/19/15 11:56 / sld		ICP2-HE_150519A	46	R106247
Manganese	0.113	mg/L		0.001		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/20/15 15:05 / rgk	05/19/15 07:42	HGCV202-H_150520A	80	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Potassium	4	mg/L		1		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Sodium	18	mg/L		1		E200.7	05/19/15 11:56 / sld		ICP2-HE_150519A	46	R106247
Uranium	0.0022	mg/L		0.0002		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
Zinc	0.032	mg/L		0.008		E200.8	05/20/15 16:09 / dck		ICPMS204-B_150520A	102	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.384	mg/L		0.009		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Arsenic	0.006	mg/L		0.001		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Barium	0.029	mg/L		0.003		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Boron	ND	mg/L		0.1		E200.7	05/20/15 16:57 / sld	05/19/15 09:40	ICP2-HE_150520A	94	28985
Cadmium	0.00031	mg/L		0.00003		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Calcium	41	mg/L		1		E200.7	05/20/15 16:57 / sld	05/19/15 09:40	ICP2-HE_150520A	94	28985
Chromium	ND	mg/L		0.01		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Copper	0.019	mg/L		0.001		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Iron	0.44	mg/L		0.02		E200.7	05/20/15 16:57 / sld	05/19/15 09:40	ICP2-HE_150520A	94	28985
Lead	0.0020	mg/L		0.0003		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Magnesium	8	mg/L		1		E200.7	05/20/15 16:57 / sld	05/19/15 09:40	ICP2-HE_150520A	94	28985
Manganese	0.169	mg/L		0.001		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Mercury	0.000014	mg/L		5E-06		E245.1	05/20/15 15:09 / rgk	05/19/15 07:42	HGCV202-H_150520A	81	28979
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D, Field Duplicate #1
Lab ID: H15050235-017
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 10:15
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Potassium	4	mg/L		1		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Selenium	ND	mg/L		0.001		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Silver	ND	mg/L		0.0002		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Sodium	17	mg/L		1		E200.7	05/20/15 16:57 / sld	05/19/15 09:40	ICP2-HE_150520A	94	28985
Uranium	0.0024	mg/L		0.0002		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985
Zinc	0.066	mg/L		0.008		E200.8	05/20/15 16:12 / dck	05/19/15 09:40	ICPMS204-B_150520A	103	28985

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19
Lab ID: H15050235-018
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 09:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	18	mg/L	D	2		A2540 D	05/18/15 14:41 / SR		L24 (14410200)_150518A	27	TSS150518A
Solids, Volatile Suspended	7	mg/L		1		A2540 E	05/19/15 11:08 / SR		MISC WC_150519B	10	150519B-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	90	mg/L		4		A2320 B	05/19/15 17:05 / SR		PHSC_101-H_150519A	153	R106225
Bicarbonate as HCO3	110	mg/L		4		A2320 B	05/19/15 17:05 / SR		PHSC_101-H_150519A	153	R106225
Chloride	17	mg/L		1		E300.0	05/20/15 16:33 / SR		IC102-H_150520A	41	R106295
Sulfate	53	mg/L		1		E300.0	05/20/15 16:33 / SR		IC102-H_150520A	41	R106295
Hardness as CaCO3	139	mg/L		1		A2340 B	05/19/15 12:00 / abb		CALC_150521B	267	R106317
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	5.7	mg/L		0.5		A5310 C	05/24/15 06:44 / eli-c		SUB-C199714	8	C_R199714
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	05/19/15 15:43 / cm		FIA203-HE_150519C	136	R106261
Nitrogen, Nitrate+Nitrite as N	0.60	mg/L		0.02		E353.2	05/19/15 10:33 / cm		FIA203-HE_150519A	47	R106232
Nitrogen, Total	1.02	mg/L		0.05		A4500 N-C	05/20/15 10:03 / cm	05/19/15 09:53	FIA203-HE_150520A	43	28990
Phosphorus, Total as P	0.130	mg/L		0.003		E365.1	05/19/15 13:37 / cm	05/19/15 09:50	FIA202-HE_150519B	44	28988
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Arsenic	0.006	mg/L		0.001		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Barium	0.027	mg/L		0.003		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Boron	ND	mg/L		0.1		E200.7	05/19/15 12:00 / sld		ICP2-HE_150519A	47	R106247
Cadmium	0.00013	mg/L		0.00003		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Calcium	42	mg/L		1		E200.7	05/19/15 12:00 / sld		ICP2-HE_150519A	47	R106247
Chromium	ND	mg/L		0.01		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Copper	0.010	mg/L		0.001		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Iron	0.05	mg/L		0.02		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19
Lab ID: H15050235-018
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 09:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Magnesium	8	mg/L		1		E200.7	05/19/15 12:00 / sld		ICP2-HE_150519A	47	R106247
Manganese	0.106	mg/L		0.001		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Mercury	ND	mg/L		5E-06		E245.1	05/19/15 15:50 / rgk	05/19/15 10:28	HGCV202-H_150519A	22	28991
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Nickel	ND	mg/L		0.002		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Potassium	3	mg/L		1		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Selenium	ND	mg/L		0.001		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Silver	ND	mg/L		0.0002		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Sodium	18	mg/L		1		E200.7	05/19/15 12:00 / sld		ICP2-HE_150519A	47	R106247
Uranium	0.0026	mg/L		0.0002		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
Zinc	0.039	mg/L		0.008		E200.8	05/20/15 16:16 / dck		ICPMS204-B_150520A	104	R106315
METALS, TOTAL RECOVERABLE											
Aluminum	0.393	mg/L		0.009		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Antimony	ND	mg/L		0.0005		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Arsenic	0.007	mg/L		0.001		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Barium	0.031	mg/L		0.003		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Beryllium	ND	mg/L		0.0008		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Boron	ND	mg/L		0.1		E200.7	05/20/15 17:08 / sld	05/19/15 09:42	ICP2-HE_150520A	97	28986
Cadmium	0.00033	mg/L		0.00003		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Calcium	43	mg/L		1		E200.7	05/20/15 17:08 / sld	05/19/15 09:42	ICP2-HE_150520A	97	28986
Chromium	ND	mg/L		0.01		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Cobalt	ND	mg/L		0.01		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Copper	0.020	mg/L		0.001		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Iron	0.49	mg/L		0.02		E200.7	05/20/15 17:08 / sld	05/19/15 09:42	ICP2-HE_150520A	97	28986
Lead	0.0022	mg/L		0.0003		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Magnesium	8	mg/L		1		E200.7	05/20/15 17:08 / sld	05/19/15 09:42	ICP2-HE_150520A	97	28986
Manganese	0.167	mg/L		0.001		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Mercury	0.000015	mg/L		5E-06		E245.1	05/19/15 16:02 / rgk	05/19/15 10:28	HGCV202-H_150519A	25	28991
Molybdenum	ND	mg/L		0.005		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19
Lab ID: H15050235-018
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 09:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Potassium	4	mg/L		1		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Selenium	ND	mg/L		0.001		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Silver	ND	mg/L		0.0002		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Sodium	18	mg/L		1		E200.7	05/20/15 17:08 / sld	05/19/15 09:42	ICP2-HE_150520A	97	28986
Uranium	0.0028	mg/L		0.0002		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Vanadium	ND	mg/L		0.1		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986
Zinc	0.074	mg/L		0.008		E200.8	05/20/15 16:42 / dck	05/19/15 09:42	ICPMS204-B_150520A	112	28986

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G Sediment Sieve <0.065mm
Lab ID: H15050235-019
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 16:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	7.5	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	10	R106544
PHYSICAL CHARACTERISTICS											
Moisture	61.9	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	11	R106647
3050 EXTRACTABLE METALS											
Aluminum	19800	mg/kg-dry		9		SW6010B	06/04/15 08:40 / sld	06/01/15 16:37	ICP2-HE_150603B	121	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
Arsenic	80	mg/kg-dry		5		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
Barium	351	mg/kg-dry		5		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
Boron	13	mg/kg-dry		5		SW6010B	06/06/15 00:13 / sld	06/01/15 16:37	ICP2-HE_150605B	115	29120
Cadmium	7.4	mg/kg-dry		0.4		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
Chromium	46	mg/kg-dry		5		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
Cobalt	16	mg/kg-dry		5		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
Copper	732	mg/kg-dry		5		SW6010B	06/04/15 08:40 / sld	06/01/15 16:37	ICP2-HE_150603B	121	29120
Iron	35500	mg/kg-dry		10		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
Lead	319	mg/kg-dry		5		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
Manganese	5020	mg/kg-dry		5		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
Molybdenum	20	mg/kg-dry		5		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
Nickel	23	mg/kg-dry		5		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
Silver	ND	mg/kg-dry		5		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
Uranium	6	mg/kg-dry		5		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
Vanadium	86	mg/kg-dry		1		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
Zinc	2000	mg/kg-dry		5		SW6020	06/02/15 22:40 / dck	06/01/15 16:37	ICPMS204-B_150602B	43	29120
METALS, TOTAL											
Mercury	0.60	mg/kg-dry		0.10		SW7471B	05/28/15 10:22 / rgk	05/27/15 14:42	HGCV201-H_150528A	13	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G Sediment Sieve 0.065-1mm
Lab ID: H15050235-020
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 16:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	38.3	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	11	R106544
PHYSICAL CHARACTERISTICS											
Moisture	25.2	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	12	R106647
3050 EXTRACTABLE METALS											
Aluminum	5510	mg/kg-dry		5		SW6010B	06/04/15 10:49 / sld	06/01/15 16:40	ICP2-HE_150603B	156	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Arsenic	23	mg/kg-dry		5		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Barium	113	mg/kg-dry		5		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 10:49 / sld	06/01/15 16:40	ICP2-HE_150603B	156	29121
Cadmium	1.4	mg/kg-dry		0.2		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Chromium	11	mg/kg-dry		5		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Cobalt	5	mg/kg-dry		5		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Copper	171	mg/kg-dry		5		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Iron	14900	mg/kg-dry		7		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Lead	91	mg/kg-dry		5		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Manganese	1110	mg/kg-dry		5		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Nickel	ND	mg/kg-dry		5		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Vanadium	32	mg/kg-dry		1		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
Zinc	622	mg/kg-dry		5		SW6020	06/03/15 00:17 / dck	06/01/15 16:40	ICPMS204-B_150602B	74	29121
METALS, TOTAL											
Mercury	0.17	mg/kg-dry		0.10		SW7471B	05/28/15 10:33 / rgk	05/27/15 14:42	HGCV201-H_150528A	17	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G Sediment Sieve 1-2mm
Lab ID: H15050235-021
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 16:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	38.1	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	12	R106544
PHYSICAL CHARACTERISTICS											
Moisture	16.8	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	14	R106647
3050 EXTRACTABLE METALS											
Aluminum	3510	mg/kg-dry		5		SW6010B	06/04/15 12:40 / sld	06/01/15 16:43	ICP2-HE_150603B	186	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Arsenic	17	mg/kg-dry		5		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Barium	102	mg/kg-dry		5		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 12:40 / sld	06/01/15 16:43	ICP2-HE_150603B	186	29122
Cadmium	0.5	mg/kg-dry		0.2		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Chromium	6	mg/kg-dry		5		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Copper	93	mg/kg-dry		5		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Iron	6960	mg/kg-dry		6		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Lead	44	mg/kg-dry		5		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Manganese	972	mg/kg-dry		5		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Nickel	ND	mg/kg-dry		5		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Vanadium	18	mg/kg-dry		1		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
Zinc	216	mg/kg-dry		5		SW6020	06/03/15 01:55 / dck	06/01/15 16:43	ICPMS204-B_150602B	105	29122
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	05/28/15 10:35 / rgk	05/27/15 14:42	HGCV201-H_150528A	18	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-06G, Sediment Duplicate #2 Sediment Sieve <0.065
Collection Date: 05/15/15 16:00
DateReceived: 05/18/15
Lab ID: H15050235-022
Report Date: 06/15/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	8.1	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	13	R106544
PHYSICAL CHARACTERISTICS											
Moisture	61.2	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	15	R106647
3050 EXTRACTABLE METALS											
Aluminum	18600	mg/kg-dry		9		SW6010B	06/04/15 08:44 / sld	06/01/15 16:37	ICP2-HE_150603B	122	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
Arsenic	81	mg/kg-dry		5		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
Barium	351	mg/kg-dry		5		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
Boron	9	mg/kg-dry		5		SW6010B	06/04/15 08:44 / sld	06/01/15 16:37	ICP2-HE_150603B	122	29120
Cadmium	8.3	mg/kg-dry		0.4		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
Chromium	54	mg/kg-dry		5		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
Cobalt	16	mg/kg-dry		5		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
Copper	759	mg/kg-dry		5		SW6010B	06/04/15 08:44 / sld	06/01/15 16:37	ICP2-HE_150603B	122	29120
Iron	33100	mg/kg-dry		10		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
Lead	326	mg/kg-dry		5		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
Manganese	5610	mg/kg-dry		5		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
Molybdenum	14	mg/kg-dry		5		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
Nickel	29	mg/kg-dry		5		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
Silver	5	mg/kg-dry		5		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
Uranium	5	mg/kg-dry		5		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
Vanadium	80	mg/kg-dry		1		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
Zinc	2100	mg/kg-dry		5		SW6020	06/02/15 22:43 / dck	06/01/15 16:37	ICPMS204-B_150602B	44	29120
METALS, TOTAL											
Mercury	1.0	mg/kg-dry		0.10		SW7471B	05/28/15 10:38 / rgk	05/27/15 14:42	HGCV201-H_150528A	19	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-06G, Sediment Duplicate #2 Sediment Sieve 0.065-1mm
Collection Date: 05/15/15 16:00
DateReceived: 05/18/15
Lab ID: H15050235-023
Report Date: 06/15/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	37.2	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	14	R106544
PHYSICAL CHARACTERISTICS											
Moisture	21.5	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	16	R106647
3050 EXTRACTABLE METALS											
Aluminum	6120	mg/kg-dry		5		SW6010B	06/04/15 10:53 / sld	06/01/15 16:40	ICP2-HE_150603B	157	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Arsenic	24	mg/kg-dry		5		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Barium	123	mg/kg-dry		5		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 10:53 / sld	06/01/15 16:40	ICP2-HE_150603B	157	29121
Cadmium	1.5	mg/kg-dry		0.2		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Chromium	11	mg/kg-dry		5		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Cobalt	6	mg/kg-dry		5		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Copper	156	mg/kg-dry		5		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Iron	15400	mg/kg-dry		6		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Lead	78	mg/kg-dry		5		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Manganese	1270	mg/kg-dry		5		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Nickel	6	mg/kg-dry		5		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Vanadium	32	mg/kg-dry		1		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
Zinc	643	mg/kg-dry		5		SW6020	06/03/15 00:20 / dck	06/01/15 16:40	ICPMS204-B_150602B	75	29121
METALS, TOTAL											
Mercury	0.70	mg/kg-dry		0.10		SW7471B	06/01/15 13:06 / rgk	05/27/15 14:42	HGCV201-H_150601A	41	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-06G, Sediment Duplicate #2 Sediment Sieve 1-2mm
Collection Date: 05/15/15 16:00
DateReceived: 05/18/15
Lab ID: H15050235-024
Report Date: 06/15/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	34.0	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	15	R106544
PHYSICAL CHARACTERISTICS											
Moisture	17.3	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	17	R106647
3050 EXTRACTABLE METALS											
Aluminum	3770	mg/kg-dry		5		SW6010B	06/04/15 12:44 / sld	06/01/15 16:43	ICP2-HE_150603B	187	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
Arsenic	20	mg/kg-dry		5		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
Barium	103	mg/kg-dry		5		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 12:44 / sld	06/01/15 16:43	ICP2-HE_150603B	187	29122
Cadmium	0.4	mg/kg-dry		0.2		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
Chromium	5	mg/kg-dry		5		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
Copper	99	mg/kg-dry		5		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
Iron	8360	mg/kg-dry		5		SW6010B	06/04/15 12:44 / sld	06/01/15 16:43	ICP2-HE_150603B	187	29122
Lead	37	mg/kg-dry		5		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
Manganese	1000	mg/kg-dry		5		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
Nickel	ND	mg/kg-dry		5		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
Vanadium	18	mg/kg-dry		1		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
Zinc	212	mg/kg-dry		5		SW6020	06/03/15 01:58 / dck	06/01/15 16:43	ICPMS204-B_150602B	106	29122
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	05/28/15 10:43 / rgk	05/27/15 14:42	HGCV201-H_150528A	21	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07 Sediment Sieve <0.065mm
Lab ID: H15050235-025
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 14:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	6.9	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	16	R106544
PHYSICAL CHARACTERISTICS											
Moisture	61.5	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	18	R106647
3050 EXTRACTABLE METALS											
Aluminum	20400	mg/kg-dry		8		SW6010B	06/04/15 08:48 / sld	06/01/15 16:37	ICP2-HE_150603B	123	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 22:46 / dck	06/01/15 16:37	ICPMS204-B_150602B	45	29120
Arsenic	77	mg/kg-dry		5		SW6020	06/02/15 22:46 / dck	06/01/15 16:37	ICPMS204-B_150602B	45	29120
Barium	273	mg/kg-dry		5		SW6020	06/02/15 22:46 / dck	06/01/15 16:37	ICPMS204-B_150602B	45	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 22:46 / dck	06/01/15 16:37	ICPMS204-B_150602B	45	29120
Boron	10	mg/kg-dry		5		SW6010B	06/04/15 08:48 / sld	06/01/15 16:37	ICP2-HE_150603B	123	29120
Cadmium	8.9	mg/kg-dry		0.4		SW6020	06/02/15 22:46 / dck	06/01/15 16:37	ICPMS204-B_150602B	45	29120
Chromium	43	mg/kg-dry		5		SW6020	06/02/15 22:46 / dck	06/01/15 16:37	ICPMS204-B_150602B	45	29120
Cobalt	15	mg/kg-dry		5		SW6020	06/02/15 22:46 / dck	06/01/15 16:37	ICPMS204-B_150602B	45	29120
Copper	773	mg/kg-dry		5		SW6010B	06/04/15 08:48 / sld	06/01/15 16:37	ICP2-HE_150603B	123	29120
Iron	29400	mg/kg-dry		10		SW6020	06/02/15 22:46 / dck	06/01/15 16:37	ICPMS204-B_150602B	45	29120
Lead	321	mg/kg-dry		5		SW6020	06/02/15 22:46 / dck	06/01/15 16:37	ICPMS204-B_150602B	45	29120
Manganese	2150	mg/kg-dry		5		SW6010B	06/04/15 08:48 / sld	06/01/15 16:37	ICP2-HE_150603B	123	29120
Molybdenum	20	mg/kg-dry		5		SW6020	06/02/15 22:46 / dck	06/01/15 16:37	ICPMS204-B_150602B	45	29120
Nickel	24	mg/kg-dry		5		SW6020	06/02/15 22:46 / dck	06/01/15 16:37	ICPMS204-B_150602B	45	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 22:46 / dck	06/01/15 16:37	ICPMS204-B_150602B	45	29120
Silver	ND	mg/kg-dry		5		SW6020	06/02/15 22:46 / dck	06/01/15 16:37	ICPMS204-B_150602B	45	29120
Uranium	8	mg/kg-dry		5		SW6020	06/02/15 22:46 / dck	06/01/15 16:37	ICPMS204-B_150602B	45	29120
Vanadium	84	mg/kg-dry		1		SW6020	06/02/15 22:46 / dck	06/01/15 16:37	ICPMS204-B_150602B	45	29120
Zinc	2530	mg/kg-dry		5		SW6020	06/02/15 22:46 / dck	06/01/15 16:37	ICPMS204-B_150602B	45	29120
METALS, TOTAL											
Mercury	0.88	mg/kg-dry		0.10		SW7471B	05/28/15 10:46 / rgk	05/27/15 14:42	HGCV201-H_150528A	22	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07 Sediment Sieve 0.065-1mm
Lab ID: H15050235-026
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 14:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	25.2	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	17	R106544
PHYSICAL CHARACTERISTICS											
Moisture	33.4	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	19	R106647
3050 EXTRACTABLE METALS											
Aluminum	6190	mg/kg-dry		5		SW6010B	06/04/15 10:57 / sld	06/01/15 16:40	ICP2-HE_150603B	158	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Arsenic	29	mg/kg-dry		5		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Barium	97	mg/kg-dry		5		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 10:57 / sld	06/01/15 16:40	ICP2-HE_150603B	158	29121
Cadmium	2.1	mg/kg-dry		0.2		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Chromium	22	mg/kg-dry		5		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Cobalt	9	mg/kg-dry		5		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Copper	338	mg/kg-dry		5		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Iron	37700	mg/kg-dry		7		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Lead	99	mg/kg-dry		5		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Manganese	647	mg/kg-dry		5		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Nickel	8	mg/kg-dry		5		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Vanadium	79	mg/kg-dry		1		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
Zinc	777	mg/kg-dry		5		SW6020	06/03/15 00:23 / dck	06/01/15 16:40	ICPMS204-B_150602B	76	29121
METALS, TOTAL											
Mercury	0.28	mg/kg-dry		0.10		SW7471B	05/28/15 10:48 / rgk	05/27/15 14:42	HGCV201-H_150528A	23	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07 Sediment Sieve 1-2mm
Lab ID: H15050235-027
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 14:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	17.4	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	18	R106544
PHYSICAL CHARACTERISTICS											
Moisture	26.6	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	20	R106647
3050 EXTRACTABLE METALS											
Aluminum	3910	mg/kg-dry		5		SW6010B	06/04/15 12:48 / sld	06/01/15 16:43	ICP2-HE_150603B	188	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Arsenic	15	mg/kg-dry		5		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Barium	82	mg/kg-dry		5		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 12:48 / sld	06/01/15 16:43	ICP2-HE_150603B	188	29122
Cadmium	5.0	mg/kg-dry		0.2		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Chromium	7	mg/kg-dry		5		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Copper	199	mg/kg-dry		5		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Iron	11900	mg/kg-dry		6		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Lead	40	mg/kg-dry		5		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Manganese	558	mg/kg-dry		5		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Nickel	ND	mg/kg-dry		5		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Vanadium	25	mg/kg-dry		1		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
Zinc	1570	mg/kg-dry		5		SW6020	06/03/15 02:02 / dck	06/01/15 16:43	ICPMS204-B_150602B	107	29122
METALS, TOTAL											
Mercury	0.17	mg/kg-dry		0.10		SW7471B	05/28/15 10:51 / rgk	05/27/15 14:42	HGCV201-H_150528A	24	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08 Sediment Sieve <0.065mm
Lab ID: H15050235-028
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 13:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	13.8	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	19	R106544
PHYSICAL CHARACTERISTICS											
Moisture	76.4	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	21	R106647
3050 EXTRACTABLE METALS											
Aluminum	20600	mg/kg-dry		10		SW6010B	06/04/15 08:51 / sld	06/01/15 16:37	ICP2-HE_150603B	124	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
Arsenic	71	mg/kg-dry		5		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
Barium	408	mg/kg-dry		5		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
Boron	13	mg/kg-dry		5		SW6010B	06/04/15 08:51 / sld	06/01/15 16:37	ICP2-HE_150603B	124	29120
Cadmium	14.0	mg/kg-dry		0.7		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
Chromium	36	mg/kg-dry		5		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
Cobalt	11	mg/kg-dry		5		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
Copper	963	mg/kg-dry		5		SW6010B	06/04/15 08:51 / sld	06/01/15 16:37	ICP2-HE_150603B	124	29120
Iron	35700	mg/kg-dry		20		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
Lead	450	mg/kg-dry		5		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
Manganese	1690	mg/kg-dry		5		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
Molybdenum	18	mg/kg-dry		5		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
Nickel	18	mg/kg-dry		5		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
Silver	7	mg/kg-dry		5		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
Uranium	14	mg/kg-dry		5		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
Vanadium	67	mg/kg-dry		2		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
Zinc	2460	mg/kg-dry		5		SW6020	06/02/15 22:49 / dck	06/01/15 16:37	ICPMS204-B_150602B	46	29120
METALS, TOTAL											
Mercury	2.3	mg/kg-dry		0.10		SW7471B	06/01/15 13:09 / rgk	05/27/15 14:42	HGCV201-H_150601A	42	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08 Sediment Sieve 0.065-1mm
Lab ID: H15050235-029
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 13:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	52.0	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	20	R106544
PHYSICAL CHARACTERISTICS											
Moisture	23.1	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	22	R106647
3050 EXTRACTABLE METALS											
Aluminum	4960	mg/kg-dry		5		SW6010B	06/04/15 11:08 / sld	06/01/15 16:40	ICP2-HE_150603B	161	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Arsenic	13	mg/kg-dry		5		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Barium	106	mg/kg-dry		5		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 11:08 / sld	06/01/15 16:40	ICP2-HE_150603B	161	29121
Cadmium	2.2	mg/kg-dry		0.2		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Chromium	5	mg/kg-dry		5		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Copper	148	mg/kg-dry		5		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Iron	9200	mg/kg-dry		6		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Lead	40	mg/kg-dry		5		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Manganese	496	mg/kg-dry		5		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Nickel	ND	mg/kg-dry		5		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Vanadium	19	mg/kg-dry		1		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
Zinc	391	mg/kg-dry		5		SW6020	06/03/15 00:27 / dck	06/01/15 16:40	ICPMS204-B_150602B	77	29121
METALS, TOTAL											
Mercury	0.39	mg/kg-dry		0.10		SW7471B	06/01/15 13:12 / rgk	05/27/15 14:42	HGCV201-H_150601A	43	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08 Sediment Sieve 1-2mm
Lab ID: H15050235-030
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 13:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	24.6	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	21	R106544
PHYSICAL CHARACTERISTICS											
Moisture	21.0	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	23	R106647
3050 EXTRACTABLE METALS											
Aluminum	5280	mg/kg-dry		5		SW6010B	06/04/15 12:51 / sld	06/01/15 16:43	ICP2-HE_150603B	189	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Arsenic	78	mg/kg-dry		5		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Barium	72	mg/kg-dry		5		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 12:51 / sld	06/01/15 16:43	ICP2-HE_150603B	189	29122
Cadmium	2.6	mg/kg-dry		0.2		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Chromium	ND	mg/kg-dry		5		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Copper	276	mg/kg-dry		5		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Iron	8420	mg/kg-dry		6		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Lead	52	mg/kg-dry		5		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Manganese	129	mg/kg-dry		5		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Nickel	ND	mg/kg-dry		5		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Vanadium	16	mg/kg-dry		1		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
Zinc	674	mg/kg-dry		5		SW6020	06/03/15 02:05 / dck	06/01/15 16:43	ICPMS204-B_150602B	108	29122
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	06/01/15 13:22 / rgk	05/27/15 14:42	HGCV201-H_150601A	47	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A Sediment Sieve <0.065mm
Lab ID: H15050235-031
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 13:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	13.2	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	22	R106544
PHYSICAL CHARACTERISTICS											
Moisture	68.5	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	25	R106647
3050 EXTRACTABLE METALS											
Aluminum	28700	mg/kg-dry		10		SW6010B	06/04/15 08:55 / sld	06/01/15 16:37	ICP2-HE_150603B	125	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Arsenic	33	mg/kg-dry		5		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Barium	205	mg/kg-dry		5		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Boron	10	mg/kg-dry		5		SW6010B	06/04/15 08:55 / sld	06/01/15 16:37	ICP2-HE_150603B	125	29120
Cadmium	5.8	mg/kg-dry		0.5		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Chromium	18	mg/kg-dry		5		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Cobalt	12	mg/kg-dry		5		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Copper	409	mg/kg-dry		5		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Iron	24900	mg/kg-dry		10		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Lead	232	mg/kg-dry		5		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Manganese	2190	mg/kg-dry		5		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Molybdenum	ND	mg/kg-dry		5		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Nickel	11	mg/kg-dry		5		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Silver	ND	mg/kg-dry		5		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Uranium	ND	mg/kg-dry		5		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Vanadium	32	mg/kg-dry		1		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
Zinc	1450	mg/kg-dry		5		SW6020	06/02/15 23:02 / dck	06/01/15 16:37	ICPMS204-B_150602B	50	29120
METALS, TOTAL											
Mercury	0.55	mg/kg-dry		0.10		SW7471B	05/28/15 12:15 / rgk	05/27/15 14:42	HGCV201-H_150528A	52	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-10A Sediment Sieve 0.065-1mm
Collection Date: 05/15/15 13:00
DateReceived: 05/18/15
Lab ID: H15050235-032
Report Date: 06/15/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	35.1	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	23	R106544
PHYSICAL CHARACTERISTICS											
Moisture	42.6	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	26	R106647
3050 EXTRACTABLE METALS											
Aluminum	18000	mg/kg-dry		6		SW6010B	06/04/15 11:11 / sld	06/01/15 16:40	ICP2-HE_150603B	162	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Arsenic	15	mg/kg-dry		5		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Barium	211	mg/kg-dry		5		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 11:11 / sld	06/01/15 16:40	ICP2-HE_150603B	162	29121
Cadmium	2.8	mg/kg-dry		0.3		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Chromium	13	mg/kg-dry		5		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Cobalt	8	mg/kg-dry		5		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Copper	178	mg/kg-dry		5		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Iron	24800	mg/kg-dry		9		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Lead	85	mg/kg-dry		5		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Manganese	1290	mg/kg-dry		5		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Nickel	ND	mg/kg-dry		5		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Vanadium	50	mg/kg-dry		1		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
Zinc	481	mg/kg-dry		5		SW6020	06/03/15 00:30 / dck	06/01/15 16:40	ICPMS204-B_150602B	78	29121
METALS, TOTAL											
Mercury	0.41	mg/kg-dry		0.10		SW7471B	05/28/15 12:18 / rgk	05/27/15 14:42	HGCV201-H_150528A	53	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A Sediment Sieve 1-2mm
Lab ID: H15050235-033
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 13:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	31.9	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	24	R106544
PHYSICAL CHARACTERISTICS											
Moisture	45.3	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	27	R106647
3050 EXTRACTABLE METALS											
Aluminum	32300	mg/kg-dry		6		SW6010B	06/04/15 12:55 / sld	06/01/15 16:43	ICP2-HE_150603B	190	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Arsenic	16	mg/kg-dry		5		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Barium	413	mg/kg-dry		5		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 12:55 / sld	06/01/15 16:43	ICP2-HE_150603B	190	29122
Cadmium	2.2	mg/kg-dry		0.3		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Chromium	8	mg/kg-dry		5		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Cobalt	9	mg/kg-dry		5		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Copper	108	mg/kg-dry		5		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Iron	25200	mg/kg-dry		9		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Lead	54	mg/kg-dry		5		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Manganese	1870	mg/kg-dry		5		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Nickel	ND	mg/kg-dry		5		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Vanadium	23	mg/kg-dry		1		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
Zinc	363	mg/kg-dry		5		SW6020	06/03/15 02:08 / dck	06/01/15 16:43	ICPMS204-B_150602B	109	29122
METALS, TOTAL											
Mercury	0.20	mg/kg-dry		0.10		SW7471B	05/28/15 12:20 / rgk	05/27/15 14:42	HGCV201-H_150528A	54	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B Sediment Sieve <0.065mm
Lab ID: H15050235-034
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 12:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	3.7	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	25	R106544
PHYSICAL CHARACTERISTICS											
Moisture	67.9	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	28	R106647
3050 EXTRACTABLE METALS											
Aluminum	31800	mg/kg-dry		10		SW6010B	06/04/15 08:59 / sld	06/01/15 16:37	ICP2-HE_150603B	126	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Arsenic	45	mg/kg-dry		5		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Barium	422	mg/kg-dry		5		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Boron	13	mg/kg-dry		5		SW6010B	06/04/15 08:59 / sld	06/01/15 16:37	ICP2-HE_150603B	126	29120
Cadmium	8.2	mg/kg-dry		0.5		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Chromium	25	mg/kg-dry		5		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Cobalt	15	mg/kg-dry		5		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Copper	634	mg/kg-dry		5		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Iron	32200	mg/kg-dry		10		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Lead	207	mg/kg-dry		5		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Manganese	2100	mg/kg-dry		5		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Molybdenum	8	mg/kg-dry		5		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Nickel	15	mg/kg-dry		5		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Silver	ND	mg/kg-dry		5		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Uranium	7	mg/kg-dry		5		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Vanadium	55	mg/kg-dry		1		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
Zinc	1790	mg/kg-dry		5		SW6020	06/02/15 23:05 / dck	06/01/15 16:37	ICPMS204-B_150602B	51	29120
METALS, TOTAL											
Mercury	0.75	mg/kg-dry		0.10		SW7471B	05/28/15 12:23 / rgk	05/27/15 14:42	HGCV201-H_150528A	55	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B Sediment Sieve 0.065-1mm
Lab ID: H15050235-035
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 12:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	19.4	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	26	R106544
PHYSICAL CHARACTERISTICS											
Moisture	26.2	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	29	R106647
3050 EXTRACTABLE METALS											
Aluminum	6580	mg/kg-dry		5		SW6010B	06/04/15 11:15 / sld	06/01/15 16:40	ICP2-HE_150603B	163	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Arsenic	9	mg/kg-dry		5		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Barium	87	mg/kg-dry		5		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 11:15 / sld	06/01/15 16:40	ICP2-HE_150603B	163	29121
Cadmium	1.5	mg/kg-dry		0.2		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Chromium	20	mg/kg-dry		5		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Copper	69	mg/kg-dry		5		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Iron	32400	mg/kg-dry		7		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Lead	30	mg/kg-dry		5		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Manganese	365	mg/kg-dry		5		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Nickel	ND	mg/kg-dry		5		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Vanadium	102	mg/kg-dry		1		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
Zinc	218	mg/kg-dry		5		SW6020	06/03/15 00:33 / dck	06/01/15 16:40	ICPMS204-B_150602B	79	29121
METALS, TOTAL											
Mercury	0.10	mg/kg-dry		0.10		SW7471B	05/28/15 12:25 / rgk	05/27/15 14:42	HGCV201-H_150528A	56	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B Sediment Sieve 1-2mm
Lab ID: H15050235-036
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 12:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	10.6	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	27	R106544
PHYSICAL CHARACTERISTICS											
Moisture	21.3	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	30	R106647
3050 EXTRACTABLE METALS											
Aluminum	6500	mg/kg-dry		5		SW6010B	06/04/15 12:59 / sld	06/01/15 16:43	ICP2-HE_150603B	191	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Arsenic	ND	mg/kg-dry		5		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Barium	79	mg/kg-dry		5		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 12:59 / sld	06/01/15 16:43	ICP2-HE_150603B	191	29122
Cadmium	0.5	mg/kg-dry		0.2		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Chromium	ND	mg/kg-dry		5		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Copper	24	mg/kg-dry		5		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Iron	7660	mg/kg-dry		6		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Lead	8	mg/kg-dry		5		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Manganese	313	mg/kg-dry		5		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Nickel	ND	mg/kg-dry		5		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Vanadium	14	mg/kg-dry		1		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
Zinc	109	mg/kg-dry		5		SW6020	06/03/15 02:11 / dck	06/01/15 16:43	ICPMS204-B_150602B	110	29122
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	05/28/15 12:28 / rgk	05/27/15 14:42	HGCV201-H_150528A	57	29065

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C Sediment Sieve <0.065mm
Lab ID: H15050235-037
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 10:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	2.8	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	28	R106544
PHYSICAL CHARACTERISTICS											
Moisture	65.2	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	31	R106647
3050 EXTRACTABLE METALS											
Aluminum	23200	mg/kg-dry		10		SW6010B	06/04/15 09:02 / sld	06/01/15 16:37	ICP2-HE_150603B	127	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Arsenic	31	mg/kg-dry		5		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Barium	366	mg/kg-dry		5		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Boron	14	mg/kg-dry		5		SW6010B	06/06/15 00:17 / sld	06/01/15 16:37	ICP2-HE_150605B	116	29120
Cadmium	8.9	mg/kg-dry		0.5		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Chromium	28	mg/kg-dry		5		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Cobalt	13	mg/kg-dry		5		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Copper	562	mg/kg-dry		5		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Iron	24500	mg/kg-dry		10		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Lead	203	mg/kg-dry		5		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Manganese	4320	mg/kg-dry		5		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Molybdenum	5	mg/kg-dry		5		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Nickel	18	mg/kg-dry		5		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Silver	ND	mg/kg-dry		5		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Uranium	9	mg/kg-dry		5		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Vanadium	63	mg/kg-dry		1		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
Zinc	1420	mg/kg-dry		5		SW6020	06/02/15 23:08 / dck	06/01/15 16:37	ICPMS204-B_150602B	52	29120
METALS, TOTAL											
Mercury	0.58	mg/kg-dry		0.10		SW7471B	06/01/15 11:46 / rgk	05/29/15 09:26	HGCV201-H_150601A	13	29086

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C Sediment Sieve 0.065-1mm
Lab ID: H15050235-038
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 10:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	20.0	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	29	R106544
PHYSICAL CHARACTERISTICS											
Moisture	25.7	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	32	R106647
3050 EXTRACTABLE METALS											
Aluminum	5210	mg/kg-dry		5		SW6010B	06/04/15 11:19 / sld	06/01/15 16:40	ICP2-HE_150603B	164	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Arsenic	6	mg/kg-dry		5		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Barium	105	mg/kg-dry		5		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 11:19 / sld	06/01/15 16:40	ICP2-HE_150603B	164	29121
Cadmium	0.8	mg/kg-dry		0.2		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Chromium	10	mg/kg-dry		5		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Copper	37	mg/kg-dry		5		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Iron	12900	mg/kg-dry		7		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Lead	13	mg/kg-dry		5		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Manganese	557	mg/kg-dry		5		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Nickel	ND	mg/kg-dry		5		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Vanadium	34	mg/kg-dry		1		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
Zinc	124	mg/kg-dry		5		SW6020	06/03/15 00:36 / dck	06/01/15 16:40	ICPMS204-B_150602B	80	29121
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	06/01/15 11:48 / rgk	05/29/15 09:26	HGCV201-H_150601A	14	29086

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C Sediment Sieve 1-2mm
Lab ID: H15050235-039
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 10:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	14.3	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	30	R106544
PHYSICAL CHARACTERISTICS											
Moisture	19.7	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	33	R106647
3050 EXTRACTABLE METALS											
Aluminum	3450	mg/kg-dry		5		SW6010B	06/04/15 13:02 / sld	06/01/15 16:43	ICP2-HE_150603B	192	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Arsenic	ND	mg/kg-dry		5		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Barium	161	mg/kg-dry		5		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 13:02 / sld	06/01/15 16:43	ICP2-HE_150603B	192	29122
Cadmium	0.4	mg/kg-dry		0.2		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Chromium	5	mg/kg-dry		5		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Copper	25	mg/kg-dry		5		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Iron	4970	mg/kg-dry		6		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Lead	41	mg/kg-dry		5		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Manganese	864	mg/kg-dry		5		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Molybdenum	8	mg/kg-dry		5		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Nickel	ND	mg/kg-dry		5		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Vanadium	12	mg/kg-dry		1		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
Zinc	72	mg/kg-dry		5		SW6020	06/03/15 02:14 / dck	06/01/15 16:43	ICPMS204-B_150602B	111	29122
METALS, TOTAL											
Mercury	0.20	mg/kg-dry		0.10		SW7471B	06/01/15 11:59 / rgk	05/29/15 09:26	HGCV201-H_150601A	18	29086

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-11D Sediment Sieve <0.065mm
Collection Date: 05/15/15 09:45
DateReceived: 05/18/15
Lab ID: H15050235-040
Report Date: 06/15/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	5.4	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	31	R106544
PHYSICAL CHARACTERISTICS											
Moisture	68.7	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	34	R106647
3050 EXTRACTABLE METALS											
Aluminum	32500	mg/kg-dry		10		SW6010B	06/04/15 09:13 / sld	06/01/15 16:37	ICP2-HE_150603B	130	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
Arsenic	35	mg/kg-dry		5		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
Barium	611	mg/kg-dry		5		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
Boron	15	mg/kg-dry		5		SW6010B	06/04/15 09:13 / sld	06/01/15 16:37	ICP2-HE_150603B	130	29120
Cadmium	7.3	mg/kg-dry		0.6		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
Chromium	59	mg/kg-dry		5		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
Cobalt	17	mg/kg-dry		5		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
Copper	409	mg/kg-dry		5		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
Iron	34100	mg/kg-dry		10		SW6010B	06/04/15 09:13 / sld	06/01/15 16:37	ICP2-HE_150603B	130	29120
Lead	176	mg/kg-dry		5		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
Manganese	3990	mg/kg-dry		5		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
Molybdenum	ND	mg/kg-dry		5		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
Nickel	34	mg/kg-dry		5		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
Silver	ND	mg/kg-dry		5		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
Uranium	6	mg/kg-dry		5		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
Vanadium	73	mg/kg-dry		1		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
Zinc	1370	mg/kg-dry		5		SW6020	06/02/15 23:11 / dck	06/01/15 16:37	ICPMS204-B_150602B	53	29120
METALS, TOTAL											
Mercury	0.47	mg/kg-dry		0.10		SW7471B	06/01/15 12:01 / rgk	05/29/15 09:26	HGCV201-H_150601A	19	29086

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D Sediment Sieve 0.065-1mm
Lab ID: H15050235-041
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 09:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	29.2	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	32	R106544
PHYSICAL CHARACTERISTICS											
Moisture	23.1	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	36	R106647
3050 EXTRACTABLE METALS											
Aluminum	5010	mg/kg-dry		5		SW6010B	06/04/15 11:22 / sld	06/01/15 16:40	ICP2-HE_150603B	165	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Arsenic	ND	mg/kg-dry		5		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Barium	130	mg/kg-dry		5		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 11:22 / sld	06/01/15 16:40	ICP2-HE_150603B	165	29121
Cadmium	0.6	mg/kg-dry		0.2		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Chromium	11	mg/kg-dry		5		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Copper	29	mg/kg-dry		5		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Iron	10000	mg/kg-dry		6		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Lead	10	mg/kg-dry		5		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Manganese	283	mg/kg-dry		5		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Nickel	5	mg/kg-dry		5		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Vanadium	26	mg/kg-dry		1		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
Zinc	93	mg/kg-dry		5		SW6020	06/03/15 00:49 / dck	06/01/15 16:40	ICPMS204-B_150602B	84	29121
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	06/01/15 12:04 / rgk	05/29/15 09:26	HGCV201-H_150601A	20	29086

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D Sediment Sieve 1-2mm
Lab ID: H15050235-042
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/15/15 09:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	12.4	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	33	R106544
PHYSICAL CHARACTERISTICS											
Moisture	17.0	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	37	R106647
3050 EXTRACTABLE METALS											
Aluminum	4580	mg/kg-dry		5		SW6010B	06/04/15 13:06 / sld	06/01/15 16:43	ICP2-HE_150603B	193	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Arsenic	ND	mg/kg-dry		5		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Barium	114	mg/kg-dry		5		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 13:06 / sld	06/01/15 16:43	ICP2-HE_150603B	193	29122
Cadmium	0.3	mg/kg-dry		0.2		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Chromium	11	mg/kg-dry		5		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Copper	19	mg/kg-dry		5		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Iron	6470	mg/kg-dry		6		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Lead	8	mg/kg-dry		5		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Manganese	448	mg/kg-dry		5		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Nickel	6	mg/kg-dry		5		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Vanadium	14	mg/kg-dry		1		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
Zinc	116	mg/kg-dry		5		SW6020	06/03/15 02:27 / dck	06/01/15 16:43	ICPMS204-B_150602B	115	29122
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	06/01/15 12:07 / rgk	05/29/15 09:26	HGCV201-H_150601A	21	29086

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13 Sediment Sieve <0.065mm
Lab ID: H15050235-043
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 16:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	10.2	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	34	R106544
PHYSICAL CHARACTERISTICS											
Moisture	67.3	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	38	R106647
3050 EXTRACTABLE METALS											
Aluminum	21100	mg/kg-dry		10		SW6010B	06/04/15 09:17 / sld	06/01/15 16:37	ICP2-HE_150603B	131	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Arsenic	43	mg/kg-dry		5		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Barium	332	mg/kg-dry		5		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Boron	14	mg/kg-dry		5		SW6010B	06/04/15 09:17 / sld	06/01/15 16:37	ICP2-HE_150603B	131	29120
Cadmium	10.1	mg/kg-dry		0.5		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Chromium	32	mg/kg-dry		5		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Cobalt	13	mg/kg-dry		5		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Copper	715	mg/kg-dry		5		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Iron	25600	mg/kg-dry		10		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Lead	180	mg/kg-dry		5		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Manganese	2070	mg/kg-dry		5		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Molybdenum	8	mg/kg-dry		5		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Nickel	18	mg/kg-dry		5		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Silver	ND	mg/kg-dry		5		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Uranium	9	mg/kg-dry		5		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Vanadium	53	mg/kg-dry		1		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
Zinc	1960	mg/kg-dry		5		SW6020	06/02/15 23:14 / dck	06/01/15 16:37	ICPMS204-B_150602B	54	29120
METALS, TOTAL											
Mercury	0.85	mg/kg-dry		0.10		SW7471B	06/01/15 12:09 / rgk	05/29/15 09:26	HGCV201-H_150601A	22	29086

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13 Sediment Sieve 0.065-1mm
Lab ID: H15050235-044
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 16:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	29.4	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	35	R106544
PHYSICAL CHARACTERISTICS											
Moisture	41.0	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	39	R106647
3050 EXTRACTABLE METALS											
Aluminum	9290	mg/kg-dry		6		SW6010B	06/04/15 11:26 / sld	06/01/15 16:40	ICP2-HE_150603B	166	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Arsenic	11	mg/kg-dry		5		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Barium	224	mg/kg-dry		5		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 11:26 / sld	06/01/15 16:40	ICP2-HE_150603B	166	29121
Cadmium	2.9	mg/kg-dry		0.3		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Chromium	14	mg/kg-dry		5		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Cobalt	5	mg/kg-dry		5		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Copper	141	mg/kg-dry		5		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Iron	13600	mg/kg-dry		8		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Lead	32	mg/kg-dry		5		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Manganese	622	mg/kg-dry		5		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Nickel	7	mg/kg-dry		5		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Vanadium	31	mg/kg-dry		1		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
Zinc	442	mg/kg-dry		5		SW6020	06/03/15 00:52 / dck	06/01/15 16:40	ICPMS204-B_150602B	85	29121
METALS, TOTAL											
Mercury	0.17	mg/kg-dry		0.10		SW7471B	06/01/15 12:12 / rgk	05/29/15 09:26	HGCV201-H_150601A	23	29086

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13 Sediment Sieve 1-2mm
Lab ID: H15050235-045
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 16:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	12.7	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	36	R106544
PHYSICAL CHARACTERISTICS											
Moisture	29.3	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	40	R106647
3050 EXTRACTABLE METALS											
Aluminum	5140	mg/kg-dry		5		SW6010B	06/04/15 13:10 / sld	06/01/15 16:43	ICP2-HE_150603B	194	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Arsenic	6	mg/kg-dry		5		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Barium	138	mg/kg-dry		5		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 13:10 / sld	06/01/15 16:43	ICP2-HE_150603B	194	29122
Cadmium	0.7	mg/kg-dry		0.2		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Chromium	12	mg/kg-dry		5		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Copper	30	mg/kg-dry		5		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Iron	7940	mg/kg-dry		7		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Lead	13	mg/kg-dry		5		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Manganese	402	mg/kg-dry		5		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Nickel	7	mg/kg-dry		5		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Vanadium	16	mg/kg-dry		1		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
Zinc	156	mg/kg-dry		5		SW6020	06/03/15 02:30 / dck	06/01/15 16:43	ICPMS204-B_150602B	116	29122
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	06/01/15 12:15 / rgk	05/29/15 09:26	HGCV201-H_150601A	24	29086

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14 Sediment Sieve <0.065mm
Lab ID: H15050235-046
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 15:30
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	5.6	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	37	R106544
PHYSICAL CHARACTERISTICS											
Moisture	65.2	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	41	R106647
3050 EXTRACTABLE METALS											
Aluminum	22300	mg/kg-dry		10		SW6010B	06/04/15 09:21 / sld	06/01/15 16:37	ICP2-HE_150603B	132	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Arsenic	33	mg/kg-dry		5		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Barium	356	mg/kg-dry		5		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Boron	10	mg/kg-dry		5		SW6010B	06/06/15 00:28 / sld	06/01/15 16:37	ICP2-HE_150605B	119	29120
Cadmium	8.4	mg/kg-dry		0.5		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Chromium	31	mg/kg-dry		5		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Cobalt	13	mg/kg-dry		5		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Copper	567	mg/kg-dry		5		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Iron	24100	mg/kg-dry		10		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Lead	146	mg/kg-dry		5		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Manganese	3430	mg/kg-dry		5		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Molybdenum	6	mg/kg-dry		5		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Nickel	18	mg/kg-dry		5		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Silver	ND	mg/kg-dry		5		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Uranium	6	mg/kg-dry		5		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Vanadium	51	mg/kg-dry		1		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
Zinc	1770	mg/kg-dry		5		SW6020	06/02/15 23:18 / dck	06/01/15 16:37	ICPMS204-B_150602B	55	29120
METALS, TOTAL											
Mercury	0.59	mg/kg-dry		0.10		SW7471B	06/01/15 12:17 / rgk	05/29/15 09:26	HGCV201-H_150601A	25	29086

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14 Sediment Sieve 0.065-1mm
Lab ID: H15050235-047
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 15:30
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	33.8	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	38	R106544
PHYSICAL CHARACTERISTICS											
Moisture	25.7	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	42	R106647
3050 EXTRACTABLE METALS											
Aluminum	6690	mg/kg-dry		5		SW6010B	06/04/15 11:30 / sld	06/01/15 16:40	ICP2-HE_150603B	167	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Arsenic	10	mg/kg-dry		5		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Barium	152	mg/kg-dry		5		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 11:30 / sld	06/01/15 16:40	ICP2-HE_150603B	167	29121
Cadmium	1.0	mg/kg-dry		0.2		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Chromium	13	mg/kg-dry		5		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Copper	71	mg/kg-dry		5		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Iron	14600	mg/kg-dry		7		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Lead	20	mg/kg-dry		5		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Manganese	549	mg/kg-dry		5		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Nickel	6	mg/kg-dry		5		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Uranium	5	mg/kg-dry		5		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Vanadium	36	mg/kg-dry		1		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
Zinc	223	mg/kg-dry		5		SW6020	06/03/15 00:55 / dck	06/01/15 16:40	ICPMS204-B_150602B	86	29121
METALS, TOTAL											
Mercury	0.11	mg/kg-dry		0.10		SW7471B	06/01/15 12:25 / rgk	05/29/15 09:26	HGCV201-H_150601A	28	29086

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14 Sediment Sieve 1-2mm
Lab ID: H15050235-048
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 15:30
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	11.7	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	39	R106544
PHYSICAL CHARACTERISTICS											
Moisture	27.4	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	43	R106647
3050 EXTRACTABLE METALS											
Aluminum	5250	mg/kg-dry		5		SW6010B	06/06/15 00:47 / sld	06/01/15 16:43	ICP2-HE_150605B	124	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Arsenic	7	mg/kg-dry		5		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Barium	201	mg/kg-dry		5		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/06/15 00:47 / sld	06/01/15 16:43	ICP2-HE_150605B	124	29122
Cadmium	0.4	mg/kg-dry		0.2		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Chromium	9	mg/kg-dry		5		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Copper	27	mg/kg-dry		5		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Iron	7310	mg/kg-dry		7		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Lead	13	mg/kg-dry		5		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Manganese	538	mg/kg-dry		5		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Nickel	5	mg/kg-dry		5		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Vanadium	15	mg/kg-dry		1		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
Zinc	149	mg/kg-dry		5		SW6020	06/03/15 02:33 / dck	06/01/15 16:43	ICPMS204-B_150602B	117	29122
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	06/01/15 12:28 / rgk	05/29/15 09:26	HGCV201-H_150601A	29	29086

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A Sediment Sieve <0.065mm
Lab ID: H15050235-049
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 14:15
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	9.0	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	40	R106544
PHYSICAL CHARACTERISTICS											
Moisture	64.4	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	44	R106647
3050 EXTRACTABLE METALS											
Aluminum	20600	mg/kg-dry		9		SW6010B	06/04/15 09:24 / sld	06/01/15 16:37	ICP2-HE_150603B	133	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Arsenic	69	mg/kg-dry		5		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Barium	438	mg/kg-dry		5		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Boron	9	mg/kg-dry		5		SW6010B	06/04/15 09:24 / sld	06/01/15 16:37	ICP2-HE_150603B	133	29120
Cadmium	9.6	mg/kg-dry		0.4		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Chromium	25	mg/kg-dry		5		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Cobalt	12	mg/kg-dry		5		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Copper	802	mg/kg-dry		5		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Iron	23800	mg/kg-dry		10		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Lead	230	mg/kg-dry		5		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Manganese	3080	mg/kg-dry		5		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Molybdenum	ND	mg/kg-dry		5		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Nickel	16	mg/kg-dry		5		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Silver	ND	mg/kg-dry		5		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Uranium	ND	mg/kg-dry		5		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Vanadium	45	mg/kg-dry		1		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
Zinc	2190	mg/kg-dry		5		SW6020	06/02/15 23:21 / dck	06/01/15 16:37	ICPMS204-B_150602B	56	29120
METALS, TOTAL											
Mercury	1.2	mg/kg-dry		0.10		SW7471B	06/01/15 12:38 / rgk	05/29/15 09:26	HGCV201-H_150601A	33	29086

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A Sediment Sieve 0.065-1mm
Lab ID: H15050235-050
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 14:15
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	25.7	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	41	R106544
PHYSICAL CHARACTERISTICS											
Moisture	34.0	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	45	R106647
3050 EXTRACTABLE METALS											
Aluminum	8570	mg/kg-dry		5		SW6010B	06/04/15 11:34 / sld	06/01/15 16:40	ICP2-HE_150603B	168	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Arsenic	90	mg/kg-dry		5		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Barium	227	mg/kg-dry		5		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 11:34 / sld	06/01/15 16:40	ICP2-HE_150603B	168	29121
Cadmium	4.0	mg/kg-dry		0.3		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Chromium	17	mg/kg-dry		5		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Cobalt	6	mg/kg-dry		5		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Copper	476	mg/kg-dry		5		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Iron	26200	mg/kg-dry		7		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Lead	168	mg/kg-dry		5		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Manganese	1100	mg/kg-dry		5		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Nickel	8	mg/kg-dry		5		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Vanadium	56	mg/kg-dry		1		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
Zinc	1860	mg/kg-dry		5		SW6020	06/03/15 00:58 / dck	06/01/15 16:40	ICPMS204-B_150602B	87	29121
METALS, TOTAL											
Mercury	0.41	mg/kg-dry		0.10		SW7471B	06/01/15 12:41 / rgk	05/29/15 09:26	HGCV201-H_150601A	34	29086

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A Sediment Sieve 1-2mm
Lab ID: H15050235-051
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 14:15
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	16.1	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	42	R106544
PHYSICAL CHARACTERISTICS											
Moisture	21.9	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	47	R106647
3050 EXTRACTABLE METALS											
Aluminum	4130	mg/kg-dry		5		SW6010B	06/06/15 00:51 / sld	06/01/15 16:43	ICP2-HE_150605B	125	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Arsenic	72	mg/kg-dry		5		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Barium	85	mg/kg-dry		5		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/06/15 00:51 / sld	06/01/15 16:43	ICP2-HE_150605B	125	29122
Cadmium	1.3	mg/kg-dry		0.2		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Chromium	12	mg/kg-dry		5		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Cobalt	5	mg/kg-dry		5		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Copper	427	mg/kg-dry		5		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Iron	16700	mg/kg-dry		6		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Lead	134	mg/kg-dry		5		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Manganese	457	mg/kg-dry		5		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Nickel	6	mg/kg-dry		5		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Vanadium	18	mg/kg-dry		1		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
Zinc	505	mg/kg-dry		5		SW6020	06/03/15 02:36 / dck	06/01/15 16:43	ICPMS204-B_150602B	118	29122
METALS, TOTAL											
Mercury	0.31	mg/kg-dry		0.10		SW7471B	06/01/15 12:44 / rgk	05/29/15 09:26	HGCV201-H_150601A	35	29086

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-15A, Sediment Duplicate #1 Sediment Sieve <0.065
Collection Date: 05/14/15 14:15
DateReceived: 05/18/15
Lab ID: H15050235-052
Report Date: 06/15/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	8.5	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	43	R106544
PHYSICAL CHARACTERISTICS											
Moisture	64.1	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	48	R106647
3050 EXTRACTABLE METALS											
Aluminum	23900	mg/kg-dry		9		SW6010B	06/04/15 09:28 / sld	06/01/15 16:37	ICP2-HE_150603B	134	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
Arsenic	67	mg/kg-dry		5		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
Barium	487	mg/kg-dry		5		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
Boron	12	mg/kg-dry		5		SW6010B	06/06/15 00:32 / sld	06/01/15 16:37	ICP2-HE_150605B	120	29120
Cadmium	9.3	mg/kg-dry		0.5		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
Chromium	30	mg/kg-dry		5		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
Cobalt	13	mg/kg-dry		5		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
Copper	843	mg/kg-dry		5		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
Iron	27000	mg/kg-dry		10		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
Lead	287	mg/kg-dry		5		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
Manganese	3120	mg/kg-dry		5		SW6010B	06/04/15 09:28 / sld	06/01/15 16:37	ICP2-HE_150603B	134	29120
Molybdenum	ND	mg/kg-dry		5		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
Nickel	18	mg/kg-dry		5		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
Silver	ND	mg/kg-dry		5		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
Uranium	ND	mg/kg-dry		5		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
Vanadium	53	mg/kg-dry		1		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
Zinc	2240	mg/kg-dry		5		SW6020	06/02/15 23:24 / dck	06/01/15 16:37	ICPMS204-B_150602B	57	29120
METALS, TOTAL											
Mercury	1.0	mg/kg-dry		0.10		SW7471B	06/04/15 10:47 / rgk	06/03/15 12:59	HGCV201-H_150604A	13	29156

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-15A, Sediment Duplicate #1 Sediment Sieve 0.065-1mm
Collection Date: 05/14/15 14:15
DateReceived: 05/18/15
Lab ID: H15050235-053
Report Date: 06/15/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	33.6	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	44	R106544
PHYSICAL CHARACTERISTICS											
Moisture	31.3	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	49	R106647
3050 EXTRACTABLE METALS											
Aluminum	6990	mg/kg-dry		5		SW6010B	06/04/15 11:37 / sld	06/01/15 16:40	ICP2-HE_150603B	169	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Arsenic	47	mg/kg-dry		5		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Barium	167	mg/kg-dry		5		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 11:37 / sld	06/01/15 16:40	ICP2-HE_150603B	169	29121
Cadmium	2.1	mg/kg-dry		0.2		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Chromium	14	mg/kg-dry		5		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Cobalt	5	mg/kg-dry		5		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Copper	271	mg/kg-dry		5		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Iron	19600	mg/kg-dry		7		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Lead	129	mg/kg-dry		5		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Manganese	807	mg/kg-dry		5		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Nickel	7	mg/kg-dry		5		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Vanadium	40	mg/kg-dry		1		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
Zinc	708	mg/kg-dry		5		SW6020	06/03/15 01:01 / dck	06/01/15 16:40	ICPMS204-B_150602B	88	29121
METALS, TOTAL											
Mercury	0.35	mg/kg-dry		0.10		SW7471B	06/04/15 10:58 / rgk	06/03/15 12:59	HGCV201-H_150604A	17	29156

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-15A, Sediment Duplicate #1 Sediment Sieve 1-2mm
Collection Date: 05/14/15 14:15
DateReceived: 05/18/15
Lab ID: H15050235-054
Report Date: 06/15/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	14.3	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	45	R106544
PHYSICAL CHARACTERISTICS											
Moisture	19.1	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	50	R106647
3050 EXTRACTABLE METALS											
Aluminum	4100	mg/kg-dry		5		SW6010B	06/06/15 00:55 / sld	06/01/15 16:43	ICP2-HE_150605B	126	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Arsenic	55	mg/kg-dry		5		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Barium	156	mg/kg-dry		5		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/06/15 00:55 / sld	06/01/15 16:43	ICP2-HE_150605B	126	29122
Cadmium	1.7	mg/kg-dry		0.2		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Chromium	22	mg/kg-dry		5		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Copper	229	mg/kg-dry		5		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Iron	13500	mg/kg-dry		6		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Lead	58	mg/kg-dry		5		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Manganese	430	mg/kg-dry		5		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Nickel	8	mg/kg-dry		5		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Vanadium	21	mg/kg-dry		1		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
Zinc	730	mg/kg-dry		5		SW6020	06/03/15 02:40 / dck	06/01/15 16:43	ICPMS204-B_150602B	119	29122
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	06/04/15 11:00 / rgk	06/03/15 12:59	HGCV201-H_150604A	18	29156

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B Sediment Sieve <0.065mm
Lab ID: H15050235-055
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 12:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	8.4	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	46	R106544
PHYSICAL CHARACTERISTICS											
Moisture	66.5	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	51	R106647
3050 EXTRACTABLE METALS											
Aluminum	25100	mg/kg-dry		10		SW6010B	06/04/15 09:32 / sld	06/01/15 16:37	ICP2-HE_150603B	135	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Arsenic	70	mg/kg-dry		5		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Barium	418	mg/kg-dry		5		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Boron	13	mg/kg-dry		5		SW6010B	06/04/15 09:32 / sld	06/01/15 16:37	ICP2-HE_150603B	135	29120
Cadmium	8.5	mg/kg-dry		0.5		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Chromium	35	mg/kg-dry		5		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Cobalt	12	mg/kg-dry		5		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Copper	781	mg/kg-dry		5		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Iron	26700	mg/kg-dry		10		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Lead	236	mg/kg-dry		5		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Manganese	2930	mg/kg-dry		5		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Molybdenum	ND	mg/kg-dry		5		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Nickel	20	mg/kg-dry		5		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Silver	ND	mg/kg-dry		5		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Uranium	ND	mg/kg-dry		5		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Vanadium	54	mg/kg-dry		1		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
Zinc	1800	mg/kg-dry		5		SW6020	06/02/15 23:27 / dck	06/01/15 16:37	ICPMS204-B_150602B	58	29120
METALS, TOTAL											
Mercury	1.0	mg/kg-dry		0.10		SW7471B	06/04/15 11:03 / rgk	06/03/15 12:59	HGCV201-H_150604A	19	29156

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B Sediment Sieve 0.065-1mm
Lab ID: H15050235-056
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 12:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	56.7	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	47	R106544
PHYSICAL CHARACTERISTICS											
Moisture	31.7	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	52	R106647
3050 EXTRACTABLE METALS											
Aluminum	9870	mg/kg-dry		5		SW6010B	06/04/15 11:41 / sld	06/01/15 16:40	ICP2-HE_150603B	170	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Arsenic	46	mg/kg-dry		5		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Barium	200	mg/kg-dry		5		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 11:41 / sld	06/01/15 16:40	ICP2-HE_150603B	170	29121
Cadmium	1.4	mg/kg-dry		0.2		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Chromium	17	mg/kg-dry		5		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Cobalt	6	mg/kg-dry		5		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Copper	204	mg/kg-dry		5		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Iron	17000	mg/kg-dry		7		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Lead	98	mg/kg-dry		5		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Manganese	985	mg/kg-dry		5		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Nickel	10	mg/kg-dry		5		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Vanadium	34	mg/kg-dry		1		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
Zinc	460	mg/kg-dry		5		SW6020	06/03/15 01:05 / dck	06/01/15 16:40	ICPMS204-B_150602B	89	29121
METALS, TOTAL											
Mercury	0.30	mg/kg-dry		0.10		SW7471B	06/04/15 11:06 / rgk	06/03/15 12:59	HGCV201-H_150604A	20	29156

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B Sediment Sieve 1-2mm
Lab ID: H15050235-057
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 12:45
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	7.8	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	48	R106544
PHYSICAL CHARACTERISTICS											
Moisture	23.8	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	53	R106647
3050 EXTRACTABLE METALS											
Aluminum	8150	mg/kg-dry		5		SW6010B	06/06/15 00:58 / sld	06/01/15 16:43	ICP2-HE_150605B	127	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Arsenic	39	mg/kg-dry		5		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Barium	222	mg/kg-dry		5		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/06/15 00:58 / sld	06/01/15 16:43	ICP2-HE_150605B	127	29122
Cadmium	0.8	mg/kg-dry		0.2		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Chromium	17	mg/kg-dry		5		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Copper	214	mg/kg-dry		5		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Iron	19100	mg/kg-dry		6		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Lead	59	mg/kg-dry		5		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Manganese	1030	mg/kg-dry		5		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Nickel	10	mg/kg-dry		5		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Vanadium	26	mg/kg-dry		1		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
Zinc	388	mg/kg-dry		5		SW6020	06/03/15 02:43 / dck	06/01/15 16:43	ICPMS204-B_150602B	120	29122
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	06/04/15 11:08 / rgk	06/03/15 12:59	HGCV201-H_150604A	21	29156

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B Sediment Sieve <0.065mm
Lab ID: H15050235-058
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 11:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	6.2	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	49	R106544
PHYSICAL CHARACTERISTICS											
Moisture	61.1	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	54	R106647
3050 EXTRACTABLE METALS											
Aluminum	31700	mg/kg-dry		8		SW6010B	06/04/15 09:35 / sld	06/01/15 16:37	ICP2-HE_150603B	136	29120
Antimony	ND	mg/kg-dry		5		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Arsenic	88	mg/kg-dry		5		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Barium	361	mg/kg-dry		5		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Beryllium	ND	mg/kg-dry		5		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Boron	12	mg/kg-dry		5		SW6010B	06/04/15 09:35 / sld	06/01/15 16:37	ICP2-HE_150603B	136	29120
Cadmium	9.9	mg/kg-dry		0.4		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Chromium	51	mg/kg-dry		5		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Cobalt	17	mg/kg-dry		5		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Copper	868	mg/kg-dry		5		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Iron	44100	mg/kg-dry		10		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Lead	426	mg/kg-dry		5		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Manganese	4220	mg/kg-dry		5		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Molybdenum	ND	mg/kg-dry		5		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Nickel	30	mg/kg-dry		5		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Selenium	ND	mg/kg-dry		5		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Silver	ND	mg/kg-dry		5		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Uranium	ND	mg/kg-dry		5		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Vanadium	97	mg/kg-dry		1		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
Zinc	2350	mg/kg-dry		5		SW6020	06/02/15 23:30 / dck	06/01/15 16:37	ICPMS204-B_150602B	59	29120
METALS, TOTAL											
Mercury	1.8	mg/kg-dry		0.13		SW7471B	06/04/15 11:51 / rgk	06/03/15 12:59	HGCV201-H_150604A	37	29156

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-16B Sediment Sieve 0.065-1mm
Collection Date: 05/14/15 11:00
DateReceived: 05/18/15
Lab ID: H15050235-059
Report Date: 06/15/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	54.1	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	50	R106544
PHYSICAL CHARACTERISTICS											
Moisture	23.3	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	55	R106647
3050 EXTRACTABLE METALS											
Aluminum	5950	mg/kg-dry		5		SW6010B	06/04/15 11:52 / sld	06/01/15 16:40	ICP2-HE_150603B	173	29121
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Arsenic	31	mg/kg-dry		5		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Barium	131	mg/kg-dry		5		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Boron	ND	mg/kg-dry		5		SW6010B	06/04/15 11:52 / sld	06/01/15 16:40	ICP2-HE_150603B	173	29121
Cadmium	0.8	mg/kg-dry		0.2		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Chromium	19	mg/kg-dry		5		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Cobalt	6	mg/kg-dry		5		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Copper	163	mg/kg-dry		5		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Iron	30000	mg/kg-dry		7		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Lead	79	mg/kg-dry		5		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Manganese	633	mg/kg-dry		5		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Nickel	8	mg/kg-dry		5		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Uranium	9	mg/kg-dry		5		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Vanadium	80	mg/kg-dry		1		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
Zinc	361	mg/kg-dry		5		SW6020	06/03/15 01:08 / dck	06/01/15 16:40	ICPMS204-B_150602B	90	29121
METALS, TOTAL											
Mercury	0.17	mg/kg-dry		0.10		SW7471B	06/04/15 11:13 / rgk	06/03/15 12:59	HGCV201-H_150604A	23	29156

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B Sediment Sieve 1-2mm
Lab ID: H15050235-060
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 11:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	11.4	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	51	R106544
PHYSICAL CHARACTERISTICS											
Moisture	18.4	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	56	R106647
3050 EXTRACTABLE METALS											
Aluminum	4030	mg/kg-dry		5		SW6010B	06/06/15 01:02 / sld	06/01/15 16:43	ICP2-HE_150605B	128	29122
Antimony	ND	mg/kg-dry		5		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Arsenic	25	mg/kg-dry		5		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Barium	73	mg/kg-dry		5		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Beryllium	ND	mg/kg-dry		5		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Boron	ND	mg/kg-dry		5		SW6010B	06/06/15 01:02 / sld	06/01/15 16:43	ICP2-HE_150605B	128	29122
Cadmium	0.4	mg/kg-dry		0.2		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Chromium	9	mg/kg-dry		5		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Cobalt	ND	mg/kg-dry		5		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Copper	108	mg/kg-dry		5		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Iron	10700	mg/kg-dry		6		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Lead	42	mg/kg-dry		5		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Manganese	483	mg/kg-dry		5		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Molybdenum	ND	mg/kg-dry		5		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Nickel	5	mg/kg-dry		5		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Selenium	ND	mg/kg-dry		5		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Silver	ND	mg/kg-dry		5		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Uranium	ND	mg/kg-dry		5		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Vanadium	23	mg/kg-dry		1		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
Zinc	210	mg/kg-dry		5		SW6020	06/03/15 02:46 / dck	06/01/15 16:43	ICPMS204-B_150602B	121	29122
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	06/04/15 11:16 / rgk	06/03/15 12:59	HGCV201-H_150604A	24	29156

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-17D Sediment Sieve <0.065mm
Collection Date: 05/14/15 10:15
DateReceived: 05/18/15
Lab ID: H15050235-061
Report Date: 06/15/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	9.6	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	52	R106544
PHYSICAL CHARACTERISTICS											
Moisture	57.6	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	58	R106647
3050 EXTRACTABLE METALS											
Aluminum	22300	mg/kg-dry		8		SW6010B	06/08/15 20:36 / sld	06/02/15 17:07	ICP2-HE_150608A	106	29139
Antimony	ND	mg/kg-dry		5		SW6020	06/10/15 19:56 / dck	06/02/15 17:07	ICPMS204-B_150610B	23	29139
Arsenic	60	mg/kg-dry		5		SW6020	06/11/15 11:11 / dck	06/02/15 17:07	ICPMS204-B_150611B	25	29139
Barium	288	mg/kg-dry		5		SW6010B	06/08/15 20:36 / sld	06/02/15 17:07	ICP2-HE_150608A	106	29139
Beryllium	ND	mg/kg-dry		5		SW6020	06/10/15 19:56 / dck	06/02/15 17:07	ICPMS204-B_150610B	23	29139
Boron	8	mg/kg-dry		5		SW6010B	06/08/15 20:36 / sld	06/02/15 17:07	ICP2-HE_150608A	106	29139
Cadmium	6.2	mg/kg-dry		0.4		SW6020	06/10/15 19:56 / dck	06/02/15 17:07	ICPMS204-B_150610B	23	29139
Chromium	37	mg/kg-dry		5		SW6020	06/11/15 11:11 / dck	06/02/15 17:07	ICPMS204-B_150611B	25	29139
Cobalt	12	mg/kg-dry		5		SW6020	06/10/15 19:56 / dck	06/02/15 17:07	ICPMS204-B_150610B	23	29139
Copper	436	mg/kg-dry		5		SW6010B	06/08/15 20:36 / sld	06/02/15 17:07	ICP2-HE_150608A	106	29139
Iron	29000	mg/kg-dry		7		SW6010B	06/08/15 20:36 / sld	06/02/15 17:07	ICP2-HE_150608A	106	29139
Lead	215	mg/kg-dry		5		SW6020	06/10/15 19:56 / dck	06/02/15 17:07	ICPMS204-B_150610B	23	29139
Manganese	1950	mg/kg-dry		5		SW6010B	06/08/15 20:36 / sld	06/02/15 17:07	ICP2-HE_150608A	106	29139
Molybdenum	ND	mg/kg-dry		5		SW6020	06/10/15 19:56 / dck	06/02/15 17:07	ICPMS204-B_150610B	23	29139
Nickel	20	mg/kg-dry		5		SW6020	06/11/15 11:11 / dck	06/02/15 17:07	ICPMS204-B_150611B	25	29139
Selenium	ND	mg/kg-dry		5		SW6020	06/10/15 19:56 / dck	06/02/15 17:07	ICPMS204-B_150610B	23	29139
Silver	ND	mg/kg-dry		5		SW6020	06/10/15 19:56 / dck	06/02/15 17:07	ICPMS204-B_150610B	23	29139
Uranium	ND	mg/kg-dry		5		SW6020	06/10/15 19:56 / dck	06/02/15 17:07	ICPMS204-B_150610B	23	29139
Vanadium	64	mg/kg-dry		1		SW6020	06/10/15 19:56 / dck	06/02/15 17:07	ICPMS204-B_150610B	23	29139
Zinc	1600	mg/kg-dry		5		SW6010B	06/08/15 20:36 / sld	06/02/15 17:07	ICP2-HE_150608A	106	29139
METALS, TOTAL											
Mercury	0.71	mg/kg-dry		0.10		SW7471B	06/04/15 11:19 / rgk	06/03/15 12:59	HGCV201-H_150604A	25	29156

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D Sediment Sieve 0.065-1mm
Lab ID: H15050235-062
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 10:15
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	78.2	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	53	R106544
PHYSICAL CHARACTERISTICS											
Moisture	22.1	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	59	R106647
3050 EXTRACTABLE METALS											
Aluminum	5900	mg/kg-dry		5		SW6010B	06/08/15 20:39 / sld	06/02/15 17:07	ICP2-HE_150608A	107	29139
Antimony	ND	mg/kg-dry		5		SW6020	06/10/15 19:59 / dck	06/02/15 17:07	ICPMS204-B_150610B	24	29139
Arsenic	17	mg/kg-dry		5		SW6020	06/11/15 11:13 / dck	06/02/15 17:07	ICPMS204-B_150611B	26	29139
Barium	123	mg/kg-dry		5		SW6010B	06/08/15 20:39 / sld	06/02/15 17:07	ICP2-HE_150608A	107	29139
Beryllium	ND	mg/kg-dry		5		SW6020	06/10/15 19:59 / dck	06/02/15 17:07	ICPMS204-B_150610B	24	29139
Boron	ND	mg/kg-dry		5		SW6010B	06/08/15 20:39 / sld	06/02/15 17:07	ICP2-HE_150608A	107	29139
Cadmium	0.8	mg/kg-dry		0.2		SW6020	06/10/15 19:59 / dck	06/02/15 17:07	ICPMS204-B_150610B	24	29139
Chromium	14	mg/kg-dry		5		SW6020	06/11/15 11:13 / dck	06/02/15 17:07	ICPMS204-B_150611B	26	29139
Cobalt	ND	mg/kg-dry		5		SW6020	06/10/15 19:59 / dck	06/02/15 17:07	ICPMS204-B_150610B	24	29139
Copper	83	mg/kg-dry		5		SW6010B	06/08/15 20:39 / sld	06/02/15 17:07	ICP2-HE_150608A	107	29139
Iron	15200	mg/kg-dry		5		SW6010B	06/08/15 20:39 / sld	06/02/15 17:07	ICP2-HE_150608A	107	29139
Lead	48	mg/kg-dry		5		SW6020	06/10/15 19:59 / dck	06/02/15 17:07	ICPMS204-B_150610B	24	29139
Manganese	356	mg/kg-dry		5		SW6010B	06/08/15 20:39 / sld	06/02/15 17:07	ICP2-HE_150608A	107	29139
Molybdenum	ND	mg/kg-dry		5		SW6020	06/10/15 19:59 / dck	06/02/15 17:07	ICPMS204-B_150610B	24	29139
Nickel	6	mg/kg-dry		5		SW6020	06/11/15 11:13 / dck	06/02/15 17:07	ICPMS204-B_150611B	26	29139
Selenium	ND	mg/kg-dry		5		SW6020	06/10/15 19:59 / dck	06/02/15 17:07	ICPMS204-B_150610B	24	29139
Silver	ND	mg/kg-dry		5		SW6020	06/10/15 19:59 / dck	06/02/15 17:07	ICPMS204-B_150610B	24	29139
Uranium	ND	mg/kg-dry		5		SW6020	06/10/15 19:59 / dck	06/02/15 17:07	ICPMS204-B_150610B	24	29139
Vanadium	40	mg/kg-dry		1		SW6020	06/10/15 19:59 / dck	06/02/15 17:07	ICPMS204-B_150610B	24	29139
Zinc	309	mg/kg-dry		5		SW6010B	06/08/15 20:39 / sld	06/02/15 17:07	ICP2-HE_150608A	107	29139
METALS, TOTAL											
Mercury	0.21	mg/kg-dry		0.10		SW7471B	06/04/15 11:27 / rgk	06/03/15 12:59	HGCV201-H_150604A	28	29156

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D Sediment Sieve 1-2mm
Lab ID: H15050235-063
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 10:15
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	4.9	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	54	R106544
PHYSICAL CHARACTERISTICS											
Moisture	27.9	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	60	R106647
3050 EXTRACTABLE METALS											
Aluminum	5880	mg/kg-dry		5		SW6010B	06/08/15 20:43 / sld	06/02/15 17:07	ICP2-HE_150608A	108	29139
Antimony	ND	mg/kg-dry		5		SW6020	06/10/15 20:02 / dck	06/02/15 17:07	ICPMS204-B_150610B	25	29139
Arsenic	29	mg/kg-dry		5		SW6020	06/11/15 11:16 / dck	06/02/15 17:07	ICPMS204-B_150611B	27	29139
Barium	215	mg/kg-dry		5		SW6010B	06/08/15 20:43 / sld	06/02/15 17:07	ICP2-HE_150608A	108	29139
Beryllium	ND	mg/kg-dry		5		SW6020	06/10/15 20:02 / dck	06/02/15 17:07	ICPMS204-B_150610B	25	29139
Boron	ND	mg/kg-dry		5		SW6010B	06/08/15 20:43 / sld	06/02/15 17:07	ICP2-HE_150608A	108	29139
Cadmium	0.8	mg/kg-dry		0.2		SW6020	06/10/15 20:02 / dck	06/02/15 17:07	ICPMS204-B_150610B	25	29139
Chromium	11	mg/kg-dry		5		SW6020	06/11/15 11:16 / dck	06/02/15 17:07	ICPMS204-B_150611B	27	29139
Cobalt	ND	mg/kg-dry		5		SW6020	06/10/15 20:02 / dck	06/02/15 17:07	ICPMS204-B_150610B	25	29139
Copper	122	mg/kg-dry		5		SW6010B	06/08/15 20:43 / sld	06/02/15 17:07	ICP2-HE_150608A	108	29139
Iron	12200	mg/kg-dry		5		SW6010B	06/08/15 20:43 / sld	06/02/15 17:07	ICP2-HE_150608A	108	29139
Lead	51	mg/kg-dry		5		SW6020	06/10/15 20:02 / dck	06/02/15 17:07	ICPMS204-B_150610B	25	29139
Manganese	406	mg/kg-dry		5		SW6010B	06/08/15 20:43 / sld	06/02/15 17:07	ICP2-HE_150608A	108	29139
Molybdenum	ND	mg/kg-dry		5		SW6020	06/10/15 20:02 / dck	06/02/15 17:07	ICPMS204-B_150610B	25	29139
Nickel	7	mg/kg-dry		5		SW6020	06/11/15 11:16 / dck	06/02/15 17:07	ICPMS204-B_150611B	27	29139
Selenium	ND	mg/kg-dry		5		SW6020	06/10/15 20:02 / dck	06/02/15 17:07	ICPMS204-B_150610B	25	29139
Silver	ND	mg/kg-dry		5		SW6020	06/10/15 20:02 / dck	06/02/15 17:07	ICPMS204-B_150610B	25	29139
Uranium	ND	mg/kg-dry		5		SW6020	06/10/15 20:02 / dck	06/02/15 17:07	ICPMS204-B_150610B	25	29139
Vanadium	22	mg/kg-dry		1		SW6020	06/10/15 20:02 / dck	06/02/15 17:07	ICPMS204-B_150610B	25	29139
Zinc	341	mg/kg-dry		5		SW6010B	06/08/15 20:43 / sld	06/02/15 17:07	ICP2-HE_150608A	108	29139
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	06/04/15 11:37 / rgk	06/03/15 12:59	HGCV201-H_150604A	32	29156

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19 Sediment Sieve <0.065mm
Lab ID: H15050235-064
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 09:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	6.0	wt% Passed		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	55	R106544
PHYSICAL CHARACTERISTICS											
Moisture	50.0	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	61	R106647
3050 EXTRACTABLE METALS											
Aluminum	31100	mg/kg-dry		7		SW6010B	06/08/15 20:47 / sld	06/02/15 17:07	ICP2-HE_150608A	109	29139
Antimony	ND	mg/kg-dry		5		SW6020	06/10/15 20:05 / dck	06/02/15 17:07	ICPMS204-B_150610B	26	29139
Arsenic	39	mg/kg-dry		5		SW6020	06/11/15 11:18 / dck	06/02/15 17:07	ICPMS204-B_150611B	28	29139
Barium	383	mg/kg-dry		5		SW6010B	06/08/15 20:47 / sld	06/02/15 17:07	ICP2-HE_150608A	109	29139
Beryllium	ND	mg/kg-dry		5		SW6020	06/10/15 20:05 / dck	06/02/15 17:07	ICPMS204-B_150610B	26	29139
Boron	9	mg/kg-dry		5		SW6010B	06/08/15 20:47 / sld	06/02/15 17:07	ICP2-HE_150608A	109	29139
Cadmium	3.9	mg/kg-dry		0.3		SW6020	06/10/15 20:05 / dck	06/02/15 17:07	ICPMS204-B_150610B	26	29139
Chromium	40	mg/kg-dry		5		SW6020	06/11/15 11:18 / dck	06/02/15 17:07	ICPMS204-B_150611B	28	29139
Cobalt	12	mg/kg-dry		5		SW6020	06/10/15 20:05 / dck	06/02/15 17:07	ICPMS204-B_150610B	26	29139
Copper	272	mg/kg-dry		5		SW6010B	06/08/15 20:47 / sld	06/02/15 17:07	ICP2-HE_150608A	109	29139
Iron	30500	mg/kg-dry		6		SW6010B	06/08/15 20:47 / sld	06/02/15 17:07	ICP2-HE_150608A	109	29139
Lead	134	mg/kg-dry		5		SW6020	06/10/15 20:05 / dck	06/02/15 17:07	ICPMS204-B_150610B	26	29139
Manganese	4300	mg/kg-dry		5		SW6010B	06/08/15 20:47 / sld	06/02/15 17:07	ICP2-HE_150608A	109	29139
Molybdenum	ND	mg/kg-dry		5		SW6020	06/10/15 20:05 / dck	06/02/15 17:07	ICPMS204-B_150610B	26	29139
Nickel	25	mg/kg-dry		5		SW6020	06/11/15 11:18 / dck	06/02/15 17:07	ICPMS204-B_150611B	28	29139
Selenium	ND	mg/kg-dry		5		SW6020	06/10/15 20:05 / dck	06/02/15 17:07	ICPMS204-B_150610B	26	29139
Silver	ND	mg/kg-dry		5		SW6020	06/10/15 20:05 / dck	06/02/15 17:07	ICPMS204-B_150610B	26	29139
Uranium	ND	mg/kg-dry		5		SW6020	06/10/15 20:05 / dck	06/02/15 17:07	ICPMS204-B_150610B	26	29139
Vanadium	54	mg/kg-dry		1		SW6020	06/10/15 20:05 / dck	06/02/15 17:07	ICPMS204-B_150610B	26	29139
Zinc	818	mg/kg-dry		5		SW6010B	06/08/15 20:47 / sld	06/02/15 17:07	ICP2-HE_150608A	109	29139
METALS, TOTAL											
Mercury	0.49	mg/kg-dry		0.10		SW7471B	06/04/15 11:40 / rgk	06/03/15 12:59	HGCV201-H_150604A	33	29156

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19 Sediment Sieve 0.065-1mm
Lab ID: H15050235-065
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 09:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	57.3	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	56	R106544
PHYSICAL CHARACTERISTICS											
Moisture	22.6	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	62	R106647
3050 EXTRACTABLE METALS											
Aluminum	4750	mg/kg-dry		5		SW6010B	06/08/15 20:58 / sld	06/02/15 17:07	ICP2-HE_150608A	112	29139
Antimony	ND	mg/kg-dry		5		SW6020	06/10/15 20:08 / dck	06/02/15 17:07	ICPMS204-B_150610B	27	29139
Arsenic	18	mg/kg-dry		5		SW6020	06/11/15 11:21 / dck	06/02/15 17:07	ICPMS204-B_150611B	29	29139
Barium	109	mg/kg-dry		5		SW6010B	06/08/15 20:58 / sld	06/02/15 17:07	ICP2-HE_150608A	112	29139
Beryllium	ND	mg/kg-dry		5		SW6020	06/10/15 20:08 / dck	06/02/15 17:07	ICPMS204-B_150610B	27	29139
Boron	ND	mg/kg-dry		5		SW6010B	06/08/15 20:58 / sld	06/02/15 17:07	ICP2-HE_150608A	112	29139
Cadmium	0.6	mg/kg-dry		0.2		SW6020	06/10/15 20:08 / dck	06/02/15 17:07	ICPMS204-B_150610B	27	29139
Chromium	10	mg/kg-dry		5		SW6020	06/11/15 11:21 / dck	06/02/15 17:07	ICPMS204-B_150611B	29	29139
Cobalt	ND	mg/kg-dry		5		SW6020	06/10/15 20:08 / dck	06/02/15 17:07	ICPMS204-B_150610B	27	29139
Copper	56	mg/kg-dry		5		SW6010B	06/08/15 20:58 / sld	06/02/15 17:07	ICP2-HE_150608A	112	29139
Iron	10600	mg/kg-dry		5		SW6010B	06/08/15 20:58 / sld	06/02/15 17:07	ICP2-HE_150608A	112	29139
Lead	39	mg/kg-dry		5		SW6020	06/10/15 20:08 / dck	06/02/15 17:07	ICPMS204-B_150610B	27	29139
Manganese	527	mg/kg-dry		5		SW6010B	06/08/15 20:58 / sld	06/02/15 17:07	ICP2-HE_150608A	112	29139
Molybdenum	ND	mg/kg-dry		5		SW6020	06/10/15 20:08 / dck	06/02/15 17:07	ICPMS204-B_150610B	27	29139
Nickel	ND	mg/kg-dry		5		SW6020	06/11/15 11:21 / dck	06/02/15 17:07	ICPMS204-B_150611B	29	29139
Selenium	ND	mg/kg-dry		5		SW6020	06/10/15 20:08 / dck	06/02/15 17:07	ICPMS204-B_150610B	27	29139
Silver	ND	mg/kg-dry		5		SW6020	06/10/15 20:08 / dck	06/02/15 17:07	ICPMS204-B_150610B	27	29139
Uranium	ND	mg/kg-dry		5		SW6020	06/10/15 20:08 / dck	06/02/15 17:07	ICPMS204-B_150610B	27	29139
Vanadium	26	mg/kg-dry		1		SW6020	06/10/15 20:08 / dck	06/02/15 17:07	ICPMS204-B_150610B	27	29139
Zinc	226	mg/kg-dry		5		SW6010B	06/08/15 20:58 / sld	06/02/15 17:07	ICP2-HE_150608A	112	29139
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	06/04/15 11:42 / rgk	06/03/15 12:59	HGCV201-H_150604A	34	29156

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19 Sediment Sieve 1-2mm
Lab ID: H15050235-066
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 05/14/15 09:00
DateReceived: 05/18/15
Report Date: 06/15/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	12.0	wt% retained		0.1		ASA15-2	05/20/15 16:17 / edp		MISC SOILS_150520A	57	R106544
PHYSICAL CHARACTERISTICS											
Moisture	20.6	wt%		0.2		D2974	06/05/15 13:46 / edp		RYING OVEN 2_150604A	63	R106647
3050 EXTRACTABLE METALS											
Aluminum	4000	mg/kg-dry		5		SW6010B	06/08/15 21:02 / sld	06/02/15 17:07	ICP2-HE_150608A	113	29139
Antimony	ND	mg/kg-dry		5		SW6020	06/10/15 20:11 / dck	06/02/15 17:07	ICPMS204-B_150610B	28	29139
Arsenic	13	mg/kg-dry		5		SW6020	06/11/15 11:23 / dck	06/02/15 17:07	ICPMS204-B_150611B	30	29139
Barium	114	mg/kg-dry		5		SW6010B	06/08/15 21:02 / sld	06/02/15 17:07	ICP2-HE_150608A	113	29139
Beryllium	ND	mg/kg-dry		5		SW6020	06/10/15 20:11 / dck	06/02/15 17:07	ICPMS204-B_150610B	28	29139
Boron	ND	mg/kg-dry		5		SW6010B	06/08/15 21:02 / sld	06/02/15 17:07	ICP2-HE_150608A	113	29139
Cadmium	0.2	mg/kg-dry		0.2		SW6020	06/10/15 20:11 / dck	06/02/15 17:07	ICPMS204-B_150610B	28	29139
Chromium	8	mg/kg-dry		5		SW6020	06/11/15 11:23 / dck	06/02/15 17:07	ICPMS204-B_150611B	30	29139
Cobalt	ND	mg/kg-dry		5		SW6020	06/10/15 20:11 / dck	06/02/15 17:07	ICPMS204-B_150610B	28	29139
Copper	43	mg/kg-dry		5		SW6010B	06/08/15 21:02 / sld	06/02/15 17:07	ICP2-HE_150608A	113	29139
Iron	7840	mg/kg-dry		5		SW6010B	06/08/15 21:02 / sld	06/02/15 17:07	ICP2-HE_150608A	113	29139
Lead	17	mg/kg-dry		5		SW6020	06/10/15 20:11 / dck	06/02/15 17:07	ICPMS204-B_150610B	28	29139
Manganese	503	mg/kg-dry		5		SW6010B	06/08/15 21:02 / sld	06/02/15 17:07	ICP2-HE_150608A	113	29139
Molybdenum	ND	mg/kg-dry		5		SW6020	06/10/15 20:11 / dck	06/02/15 17:07	ICPMS204-B_150610B	28	29139
Nickel	6	mg/kg-dry		5		SW6020	06/11/15 11:23 / dck	06/02/15 17:07	ICPMS204-B_150611B	30	29139
Selenium	ND	mg/kg-dry		5		SW6020	06/10/15 20:11 / dck	06/02/15 17:07	ICPMS204-B_150610B	28	29139
Silver	ND	mg/kg-dry		5		SW6020	06/10/15 20:11 / dck	06/02/15 17:07	ICPMS204-B_150610B	28	29139
Uranium	ND	mg/kg-dry		5		SW6020	06/10/15 20:11 / dck	06/02/15 17:07	ICPMS204-B_150610B	28	29139
Vanadium	16	mg/kg-dry		1		SW6020	06/10/15 20:11 / dck	06/02/15 17:07	ICPMS204-B_150610B	28	29139
Zinc	121	mg/kg-dry		5		SW6010B	06/08/15 21:02 / sld	06/02/15 17:07	ICP2-HE_150608A	113	29139
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	06/04/15 11:45 / rgk	06/03/15 12:59	HGCV201-H_150604A	35	29156

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150519A-SLDS-VSS-W

Date: *15-Jun-15*

Run ID :Run Order: **MISC WC_150519A: 1** SampType: **Method Blank** Lab ID: **MBLK1_150519A** Method: **A2540 E**

Analysis Date: **05/19/15 09:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	ND	1									

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A**

Run ID :Run Order: **MISC WC_150519A: 14** SampType: **Sample Duplicate** Lab ID: **H15050235-008ADUP** Method: **A2540 E**

Analysis Date: **05/19/15 09:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	7	10		0				7		30	

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150519B-SLDS-VSS-W

Date: *15-Jun-15*

Run ID :Run Order: **MISC WC_150519B: 1** SampType: **Method Blank** Lab ID: **MBLK1_150519B** Method: **A2540 E**

Analysis Date: **05/19/15 11:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	ND	1									

Associated samples: **H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **MISC WC_150519B: 11** SampType: **Sample Duplicate** Lab ID: **H15050235-018ADUP** Method: **A2540 E**

Analysis Date: **05/19/15 11:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	7	1		0				6.8	5.7	30	

Associated samples: **H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150519WA

Date: *15-Jun-15*

Run ID :Run Order: **HGCV202-H_150519A: 17** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **05/19/15 15:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00021	0.00010	0.0002	0	**106**	90	110				

Associated samples: **H15050235-018B, H15050235-018C**

Run ID :Run Order: **HGCV202-H_150519A: 18** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1** Method: **E245.1**

Analysis Date: **05/19/15 15:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00021	0.00010	0.0002	0	**105**	95	105				

Associated samples: **H15050235-018B, H15050235-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150520WA

Date: *15-Jun-15*

Run ID :Run Order: **HGCV202-H_150520A: 21** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **05/20/15 11:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00021	0.00010	0.0002	0	105	90	110				

Associated samples: **H15050235-001B, H15050235-001C, H15050235-002B, H15050235-002C, H15050235-003B, H15050235-003C, H15050235-004B, H15050235-004C, H15050235-005B, H15050235-005C, H15050235-006B, H15050235-006C, H15050235-007B, H15050235-007C, H15050235-008B, H15050235-008C, H15050235-009B, H15050235-009C, H15050235-010B, H15050235-010C, H15050235-011B, H15050235-011C, H15050235-012B, H15050235-012C, H15050235-013B, H15050235-013C, H15050235-014B, H15050235-014C, H15050235-015B, H15050235-015C, H15050235-016B, H15050235-016C, H15050235-017B, H15050235-017C**

Run ID :Run Order: **HGCV202-H_150520A: 22** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1** Method: **E245.1**

Analysis Date: **05/20/15 11:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002	0	100	95	105				

Associated samples: **H15050235-001B, H15050235-001C, H15050235-002B, H15050235-002C, H15050235-003B, H15050235-003C, H15050235-004B, H15050235-004C, H15050235-005B, H15050235-005C, H15050235-006B, H15050235-006C, H15050235-007B, H15050235-007C, H15050235-008B, H15050235-008C, H15050235-009B, H15050235-009C, H15050235-010B, H15050235-010C, H15050235-011B, H15050235-011C, H15050235-012B, H15050235-012C, H15050235-013B, H15050235-013C, H15050235-014B, H15050235-014C, H15050235-015B, H15050235-015C, H15050235-016B, H15050235-016C, H15050235-017B, H15050235-017C**

Run ID :Run Order: **HGCV202-H_150520A: 38** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E245.1**

Analysis Date: **05/20/15 12:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002	0	99	90	110				

Associated samples: **H15050235-001B, H15050235-001C, H15050235-002B, H15050235-002C, H15050235-003B, H15050235-003C, H15050235-004B, H15050235-004C, H15050235-005B, H15050235-005C, H15050235-006B, H15050235-006C, H15050235-007B, H15050235-007C, H15050235-008B, H15050235-008C, H15050235-009B, H15050235-009C, H15050235-010B, H15050235-010C, H15050235-011B, H15050235-011C, H15050235-012B, H15050235-012C, H15050235-013B, H15050235-013C, H15050235-014B, H15050235-014C, H15050235-015B, H15050235-015C, H15050235-016B, H15050235-016C, H15050235-017B, H15050235-017C**

Run ID :Run Order: **HGCV202-H_150520A: 52** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E245.1**

Analysis Date: **05/20/15 13:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00021	0.00010	0.0002	0	105	90	110				

Associated samples: **H15050235-001B, H15050235-001C, H15050235-002B, H15050235-002C, H15050235-003B, H15050235-003C, H15050235-004B, H15050235-004C, H15050235-005B, H15050235-005C, H15050235-006B, H15050235-006C, H15050235-007B, H15050235-007C, H15050235-008B, H15050235-008C, H15050235-009B, H15050235-009C, H15050235-010B, H15050235-010C, H15050235-011B, H15050235-011C, H15050235-012B, H15050235-012C, H15050235-013B, H15050235-013C, H15050235-014B, H15050235-014C, H15050235-015B, H15050235-015C, H15050235-016B, H15050235-016C, H15050235-017B, H15050235-017C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150520WA

Date: *15-Jun-15*

Run ID :Run Order: **HGCV202-H_150520A: 68** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E245.1**

Analysis Date: **05/20/15 14:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00021	0.00010	0.0002	0	**104**	90	110				

Associated samples: **H15050235-001B, H15050235-001C, H15050235-002B, H15050235-002C, H15050235-003B, H15050235-003C, H15050235-004B, H15050235-004C, H15050235-005B, H15050235-005C, H15050235-006B, H15050235-006C, H15050235-007B, H15050235-007C, H15050235-008B, H15050235-008C, H15050235-009B, H15050235-009C, H15050235-010B, H15050235-010C, H15050235-011B, H15050235-011C, H15050235-012B, H15050235-012C, H15050235-013B, H15050235-013C, H15050235-014B, H15050235-014C, H15050235-015B, H15050235-015C, H15050235-016B, H15050235-016C, H15050235-017B, H15050235-017C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150528SA

Date: *15-Jun-15*

Run ID :Run Order: **HGCV201-H_150528A: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **05/28/15 09:58** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0010	0.50	0.001	0	**100**	90	110				

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A**

Run ID :Run Order: **HGCV201-H_150528A: 8** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **05/28/15 10:00** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0026	0.50	0.0025	0	**104**	90	110				

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A**

Run ID :Run Order: **HGCV201-H_150528A: 27** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **05/28/15 10:59** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0026	0.50	0.0025	0	**102**	90	110				

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A**

Run ID :Run Order: **HGCV201-H_150528A: 46** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **05/28/15 11:59** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0024	0.50	0.0025	0	**97**	90	110				

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150601SA

Date: *15-Jun-15*

Run ID :Run Order: **HGCV201-H_150601A: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **06/01/15 11:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0011	0.00010	0.001	0	105	90	110				

Associated samples: **H15050235-023A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A**

Run ID :Run Order: **HGCV201-H_150601A: 8** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **06/01/15 11:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0026	0.00010	0.0025	0	104	90	110				

Associated samples: **H15050235-023A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A**

Run ID :Run Order: **HGCV201-H_150601A: 26** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **06/01/15 12:20** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0026	0.50	0.0025	0	104	90	110				

Associated samples: **H15050235-023A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A**

Run ID :Run Order: **HGCV201-H_150601A: 36** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **06/01/15 12:46** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0026	0.50	0.0025	0	105	90	110				

Associated samples: **H15050235-023A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150604SA

Date: *15-Jun-15*

Run ID :Run Order: **HGCV201-H_150604A: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **06/04/15 10:19** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0010	0.50	0.001	0	103	90	110				

Associated samples: **H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A, H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **HGCV201-H_150604A: 8** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **06/04/15 10:22** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	101	90	110				

Associated samples: **H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A, H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **HGCV201-H_150604A: 26** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **06/04/15 11:21** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	99	90	110				

Associated samples: **H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A, H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28978

Date: *15-Jun-15*

Run ID :Run Order: **HGCV202-H_150520A: 24** SampType: **Method Blank** Lab ID: **MB-28978** Method: **E245.1**
Analysis Date: **05/20/15 11:26** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	1E-06									

Associated samples: **H15050235-001B, H15050235-001C, H15050235-002B, H15050235-002C, H15050235-003B, H15050235-003C, H15050235-004B, H15050235-004C, H15050235-005B, H15050235-005C, H15050235-006B, H15050235-006C, H15050235-007B, H15050235-007C**

Run ID :Run Order: **HGCV202-H_150520A: 25** SampType: **Laboratory Control Sample** Lab ID: **LCS-28978** Method: **E245.1**
Analysis Date: **05/20/15 11:30** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00015	0.00010	0.00015	0	99	90	110				

Associated samples: **H15050235-001B, H15050235-001C, H15050235-002B, H15050235-002C, H15050235-003B, H15050235-003C, H15050235-004B, H15050235-004C, H15050235-005B, H15050235-005C, H15050235-006B, H15050235-006C, H15050235-007B, H15050235-007C**

Run ID :Run Order: **HGCV202-H_150520A: 27** SampType: **Sample Matrix Spike** Lab ID: **H15050234-001BMS** Method: **E245.1**
Analysis Date: **05/20/15 11:37** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00014	0.00010	0.00015	0	94	70	130				

Associated samples: **H15050235-001B, H15050235-001C, H15050235-002B, H15050235-002C, H15050235-003B, H15050235-003C, H15050235-004B, H15050235-004C, H15050235-005B, H15050235-005C, H15050235-006B, H15050235-006C, H15050235-007B, H15050235-007C**

Run ID :Run Order: **HGCV202-H_150520A: 28** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050234-001BMSD** Method: **E245.1**
Analysis Date: **05/20/15 11:41** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00014	0.00010	0.00015	0	94	70	130	0.0001409	0.1	20	

Associated samples: **H15050235-001B, H15050235-001C, H15050235-002B, H15050235-002C, H15050235-003B, H15050235-003C, H15050235-004B, H15050235-004C, H15050235-005B, H15050235-005C, H15050235-006B, H15050235-006C, H15050235-007B, H15050235-007C**

Run ID :Run Order: **HGCV202-H_150520A: 41** SampType: **Sample Matrix Spike** Lab ID: **H15050235-003BMS** Method: **E245.1**
Analysis Date: **05/20/15 12:31** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00014	0.00010	0.00015	0.00000082	94	70	130				

Associated samples: **H15050235-001B, H15050235-001C, H15050235-002B, H15050235-002C, H15050235-003B, H15050235-003C, H15050235-004B, H15050235-004C, H15050235-005B, H15050235-005C, H15050235-006B, H15050235-006C, H15050235-007B, H15050235-007C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28978

Date: *15-Jun-15*

Run ID :Run Order: **HGCV202-H_150520A: 42** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-003BMSD** Method: **E245.1**

Analysis Date: **05/20/15 12:34** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00014	0.00010	0.00015	0.00000082	**95**	70	130	0.0001422	**0.7**	20	

Associated samples: **H15050235-001B, H15050235-001C, H15050235-002B, H15050235-002C, H15050235-003B, H15050235-003C, H15050235-004B, H15050235-004C, H15050235-005B, H15050235-005C, H15050235-006B, H15050235-006C, H15050235-007B, H15050235-007C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28979

Date: *15-Jun-15*

Run ID :Run Order: **HGCV202-H_150520A: 54** SampType: **Method Blank** Lab ID: **MB-28979** Method: **E245.1**
Analysis Date: **05/20/15 13:26** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	1E-06									

Associated samples: **H15050235-008B, H15050235-008C, H15050235-009B, H15050235-009C, H15050235-010B, H15050235-010C, H15050235-011B, H15050235-011C, H15050235-012B, H15050235-012C, H15050235-013B, H15050235-013C, H15050235-014B, H15050235-014C, H15050235-015B, H15050235-015C, H15050235-016B, H15050235-016C, H15050235-017B, H15050235-017C**

Run ID :Run Order: **HGCV202-H_150520A: 55** SampType: **Laboratory Control Sample** Lab ID: **LCS-28979** Method: **E245.1**
Analysis Date: **05/20/15 13:30** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00016	0.00010	0.00015	0	106	90	110				

Associated samples: **H15050235-008B, H15050235-008C, H15050235-009B, H15050235-009C, H15050235-010B, H15050235-010C, H15050235-011B, H15050235-011C, H15050235-012B, H15050235-012C, H15050235-013B, H15050235-013C, H15050235-014B, H15050235-014C, H15050235-015B, H15050235-015C, H15050235-016B, H15050235-016C, H15050235-017B, H15050235-017C**

Run ID :Run Order: **HGCV202-H_150520A: 57** SampType: **Sample Matrix Spike** Lab ID: **H15050235-008BMS** Method: **E245.1**
Analysis Date: **05/20/15 13:37** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00016	0.00010	0.00015	0.00000203	106	70	130				

Associated samples: **H15050235-008B, H15050235-008C, H15050235-009B, H15050235-009C, H15050235-010B, H15050235-010C, H15050235-011B, H15050235-011C, H15050235-012B, H15050235-012C, H15050235-013B, H15050235-013C, H15050235-014B, H15050235-014C, H15050235-015B, H15050235-015C, H15050235-016B, H15050235-016C, H15050235-017B, H15050235-017C**

Run ID :Run Order: **HGCV202-H_150520A: 58** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-008BMSD** Method: **E245.1**
Analysis Date: **05/20/15 13:41** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00015	0.00010	0.00015	0.00000203	101	70	130	0.0001607	4.8	20	

Associated samples: **H15050235-008B, H15050235-008C, H15050235-009B, H15050235-009C, H15050235-010B, H15050235-010C, H15050235-011B, H15050235-011C, H15050235-012B, H15050235-012C, H15050235-013B, H15050235-013C, H15050235-014B, H15050235-014C, H15050235-015B, H15050235-015C, H15050235-016B, H15050235-016C, H15050235-017B, H15050235-017C**

Run ID :Run Order: **HGCV202-H_150520A: 71** SampType: **Sample Matrix Spike** Lab ID: **H15050235-013BMS** Method: **E245.1**
Analysis Date: **05/20/15 14:31** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00016	0.00010	0.00015	0.00000166	105	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28979

Date: *15-Jun-15*

Run ID :Run Order: **HGCV202-H_150520A: 71** SampType: **Sample Matrix Spike** Lab ID: **H15050235-013BMS** Method: **E245.1**

Analysis Date: **05/20/15 14:31** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15050235-008B, H15050235-008C, H15050235-009B, H15050235-009C, H15050235-010B, H15050235-010C, H15050235-011B, H15050235-011C, H15050235-012B, H15050235-012C, H15050235-013B, H15050235-013C, H15050235-014B, H15050235-014C, H15050235-015B, H15050235-015C, H15050235-016B, H15050235-016C, H15050235-017B, H15050235-017C**

Run ID :Run Order: **HGCV202-H_150520A: 72** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-013BMSD** Method: **E245.1**

Analysis Date: **05/20/15 14:35** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00016	0.00010	0.00015	0.00000166	**103**	70	130	0.0001592	**1.8**	20	

Associated samples: **H15050235-008B, H15050235-008C, H15050235-009B, H15050235-009C, H15050235-010B, H15050235-010C, H15050235-011B, H15050235-011C, H15050235-012B, H15050235-012C, H15050235-013B, H15050235-013C, H15050235-014B, H15050235-014C, H15050235-015B, H15050235-015C, H15050235-016B, H15050235-016C, H15050235-017B, H15050235-017C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28985

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150520A: 61** SampType: **Method Blank** Lab ID: **MB-28985** Method: **E200.7**
Analysis Date: **05/20/15 14:47** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.003									
Calcium	0.03	0.03									
Iron	ND	0.006									
Magnesium	0.008	0.005									
Sodium	ND	0.02									

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C**

Run ID :Run Order: **ICP2-HE_150520A: 62** SampType: **Laboratory Control Sample** Lab ID: **LCS-28985** Method: **E200.7**
Analysis Date: **05/20/15 14:51** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.500	0.050	0.5	0	100	85	115				
Calcium	25.9	1.0	25	0.03121	103	85	115				
Iron	2.56	0.020	2.5	0	103	85	115				
Magnesium	25.9	1.0	25	0.00849	103	85	115				
Sodium	27.1	1.0	25	0	108	85	115				

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C**

Run ID :Run Order: **ICP2-HE_150520A: 64** SampType: **Serial Dilution** Lab ID: **H15050234-001CDIL** Method: **E200.7**
Analysis Date: **05/20/15 14:58** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.050		0		0	0	0.00975		10	
Calcium	23.5	1.0		0		0	0	25.05	6.6	10	
Iron	0.766	0.027		0		0	0	0.7965	4.0	10	
Magnesium	5.66	1.0		0		0	0	6.109	7.6	10	
Sodium	8.80	1.0		0		0	0	9.534	8.0	10	

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C**

Run ID :Run Order: **ICP2-HE_150520A: 65** SampType: **Sample Matrix Spike** Lab ID: **H15050234-001CMS3** Method: **E200.7**
Analysis Date: **05/20/15 15:02** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.535	0.050	0.5	0.00975	105	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28985

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150520A: 65** SampType: **Sample Matrix Spike** Lab ID: **H15050234-001CMS3** Method: **E200.7**

Analysis Date: **05/20/15 15:02** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	50.5	1.0	25	25.05	102	70	130				
Iron	3.38	0.020	2.5	0.7965	104	70	130				
Magnesium	32.2	1.0	25	6.109	104	70	130				
Sodium	36.0	1.0	25	9.534	106	70	130				

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C**

Run ID :Run Order: **ICP2-HE_150520A: 66** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050234-001CMSD3** Method: **E200.7**

Analysis Date: **05/20/15 15:06** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.516	0.050	0.5	0.00975	101	70	130	0.5353	3.6	20	
Calcium	50.1	1.0	25	25.05	100	70	130	50.52	0.8	20	
Iron	3.35	0.020	2.5	0.7965	102	70	130	3.384	0.9	20	
Magnesium	31.8	1.0	25	6.109	103	70	130	32.21	1.4	20	
Sodium	35.8	1.0	25	9.534	105	70	130	35.96	0.5	20	

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C**

Run ID :Run Order: **ICP2-HE_150520A: 81** SampType: **Serial Dilution** Lab ID: **H15050235-008CDIL** Method: **E200.7**

Analysis Date: **05/20/15 16:08** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.0547	0.050		0		0	0	0.05093		10	N
Calcium	48.2	1.0		0		0	0	49.3	2.2	10	
Iron	0.633	0.027		0		0	0	0.6394	1.0	10	
Magnesium	10.3	1.0		0		0	0	10.62	3.3	10	
Sodium	28.7	1.0		0		0	0	29.45	2.6	10	

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C**

Run ID :Run Order: **ICP2-HE_150520A: 82** SampType: **Sample Matrix Spike** Lab ID: **H15050235-008CMS3** Method: **E200.7**

Analysis Date: **05/20/15 16:11** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.557	0.050	0.5	0.05093	101	70	130				
Calcium	75.2	1.0	25	49.3	104	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28985

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150520A: 82** SampType: **Sample Matrix Spike** Lab ID: **H15050235-008CMS3** Method: **E200.7**

Analysis Date: **05/20/15 16:11** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	3.22	0.020	2.5	0.6394	103	70	130				
Magnesium	36.5	1.0	25	10.62	103	70	130				
Sodium	55.7	1.0	25	29.45	105	70	130				

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C**

Run ID :Run Order: **ICP2-HE_150520A: 83** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-008CMSD3** Method: **E200.7**

Analysis Date: **05/20/15 16:15** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.548	0.050	0.5	0.05093	99	70	130	0.5566	1.5	20	
Calcium	74.9	1.0	25	49.3	102	70	130	75.18	0.4	20	
Iron	3.22	0.020	2.5	0.6394	103	70	130	3.216	0.0	20	
Magnesium	36.1	1.0	25	10.62	102	70	130	36.48	1.1	20	
Sodium	54.9	1.0	25	29.45	102	70	130	55.7	1.4	20	

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28985

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 35** SampType: **Method Blank** Lab ID: **MB-28985** Method: **E200.8**

Analysis Date: **05/20/15 12:30** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	ND	6E-05									
Arsenic	7E-05	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	ND	0.002									
Cadmium	ND	1E-05									
Calcium	ND	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	0.0008	0.0002									
Iron	0.008	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	ND	4E-05									
Nickel	ND	3E-05									
Potassium	ND	0.02									
Selenium	ND	7E-05									
Silver	0.0001	5E-05									
Sodium	0.06	0.004									
Uranium	ND	5E-05									
Vanadium	0.0008	0.0001									
Zinc	0.002	0.002									

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C**

Run ID :Run Order: **ICPMS204-B_150520A: 36** SampType: **Laboratory Control Sample** Lab ID: **LCS-28985** Method: **E200.8**

Analysis Date: **05/20/15 12:33** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.47	0.030	2.5	0	**99**	85	115				
Antimony	0.519	0.0010	0.5	0	**104**	85	115				
Arsenic	0.501	0.0010	0.5	0.0000734	**100**	85	115				
Barium	0.510	0.050	0.5	0	**102**	85	115				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28985

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 36** SampType: **Laboratory Control Sample** Lab ID: **LCS-28985** Method: **E200.8**

Analysis Date: **05/20/15 12:33** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.244	0.0010	0.25	0	98	85	115				
Boron	0.489	0.050	0.5	0	98	85	115				
Cadmium	0.251	0.0010	0.25	0	100	85	115				
Calcium	26.5	1.0	25	0	106	85	115				
Chromium	0.503	0.0050	0.5	0	101	85	115				
Cobalt	0.498	0.0050	0.5	0	100	85	115				
Copper	0.496	0.0050	0.5	0.0007979	99	85	115				
Iron	2.49	0.020	2.5	0.008002	99	85	115				
Lead	0.509	0.0010	0.5	0	102	85	115				
Magnesium	25.4	1.0	25	0	102	85	115				
Manganese	2.46	0.0010	2.5	0	98	85	115				
Molybdenum	0.515	0.0010	0.5	0	103	85	115				
Nickel	0.494	0.0050	0.5	0	99	85	115				
Potassium	26.0	1.0	25	0	104	85	115				
Selenium	0.493	0.0010	0.5	0	99	85	115				
Silver	0.0488	0.0010	0.05	0.0001034	97	85	115				
Sodium	25.6	1.0	25	0.06255	102	85	115				
Uranium	0.517	0.00030	0.5	0	103	85	115				
Vanadium	0.505	0.010	0.5	0.0008061	101	85	115				
Zinc	0.501	0.010	0.5	0.002294	100	85	115				

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C**

Run ID :Run Order: **ICPMS204-B_150520A: 40** SampType: **Sample Matrix Spike** Lab ID: **H15050234-001CMS3** Method: **E200.8**

Analysis Date: **05/20/15 12:46** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.72	0.030	2.5	0.1693	102	70	130				
Antimony	0.525	0.0010	0.5	0.0002272	105	70	130				
Arsenic	0.516	0.0010	0.5	0.005048	102	70	130				
Barium	0.551	0.050	0.5	0.03236	104	70	130				
Beryllium	0.252	0.0010	0.25	0	101	70	130				
Boron	0.496	0.050	0.5	0.01619	96	70	130				
Cadmium	0.253	0.0010	0.25	0.0000353	101	70	130				
Calcium	52.4	1.0	25	24.66	111	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28985

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 40** SampType: **Sample Matrix Spike** Lab ID: **H15050234-001CMS3** Method: **E200.8**

Analysis Date: **05/20/15 12:46** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.516	0.0050	0.5	0.0003732	103	70	130				
Cobalt	0.507	0.0050	0.5	0.0001582	101	70	130				
Copper	0.507	0.0050	0.5	0.005951	100	70	130				
Iron	3.39	0.020	2.5	0.7826	104	70	130				
Lead	0.521	0.0010	0.5	0.0007273	104	70	130				
Magnesium	31.7	1.0	25	6.224	102	70	130				
Manganese	2.57	0.0010	2.5	0.04758	101	70	130				
Molybdenum	0.530	0.0010	0.5	0.004659	105	70	130				
Nickel	0.504	0.0050	0.5	0.0003911	101	70	130				
Potassium	28.8	1.0	25	2.426	106	70	130				
Selenium	0.501	0.0010	0.5	0.0001672	100	70	130				
Silver	0.0490	0.0010	0.05	0.0001508	98	70	130				
Sodium	34.6	1.0	25	9.151	102	70	130				
Uranium	0.534	0.00030	0.5	0.002269	106	70	130				
Vanadium	0.517	0.010	0.5	0.003492	103	70	130				
Zinc	0.497	0.010	0.5	0.004864	98	70	130				

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C**

Run ID :Run Order: **ICPMS204-B_150520A: 41** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050234-001CMSD3** Method: **E200.8**

Analysis Date: **05/20/15 12:49** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.63	0.030	2.5	0.1693	98	70	130	2.722	3.6	20	
Antimony	0.528	0.0010	0.5	0.0002272	105	70	130	0.5253	0.4	20	
Arsenic	0.505	0.0010	0.5	0.005048	100	70	130	0.5164	2.2	20	
Barium	0.552	0.050	0.5	0.03236	104	70	130	0.5507	0.2	20	
Beryllium	0.251	0.0010	0.25	0	100	70	130	0.252	0.4	20	
Boron	0.502	0.050	0.5	0.01619	97	70	130	0.4955	1.2	20	
Cadmium	0.251	0.0010	0.25	0.0000353	100	70	130	0.2531	1.0	20	
Calcium	51.1	1.0	25	24.66	106	70	130	52.42	2.6	20	
Chromium	0.507	0.0050	0.5	0.0003732	101	70	130	0.5162	1.9	20	
Cobalt	0.499	0.0050	0.5	0.0001582	100	70	130	0.5073	1.7	20	
Copper	0.499	0.0050	0.5	0.005951	99	70	130	0.507	1.6	20	
Iron	3.27	0.020	2.5	0.7826	100	70	130	3.39	3.5	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28985

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 41** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050234-001CMSD3** Method: **E200.8**

Analysis Date: **05/20/15 12:49** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.515	0.0010	0.5	0.0007273	103	70	130	0.5214	1.2	20	
Magnesium	31.5	1.0	25	6.224	101	70	130	31.68	0.6	20	
Manganese	2.50	0.0010	2.5	0.04758	98	70	130	2.572	2.8	20	
Molybdenum	0.530	0.0010	0.5	0.004659	105	70	130	0.5302	0.1	20	
Nickel	0.494	0.0050	0.5	0.0003911	99	70	130	0.5037	1.9	20	
Potassium	27.9	1.0	25	2.426	102	70	130	28.82	3.2	20	
Selenium	0.480	0.0010	0.5	0.0001672	96	70	130	0.5013	4.4	20	
Silver	0.0492	0.0010	0.05	0.0001508	98	70	130	0.04902	0.4	20	
Sodium	34.4	1.0	25	9.151	101	70	130	34.6	0.6	20	
Uranium	0.531	0.00030	0.5	0.002269	106	70	130	0.534	0.6	20	
Vanadium	0.500	0.010	0.5	0.003492	99	70	130	0.5169	3.2	20	
Zinc	0.497	0.010	0.5	0.004864	98	70	130	0.4971	0.1	20	

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C**

Run ID :Run Order: **ICPMS204-B_150520A: 74** SampType: **Sample Matrix Spike** Lab ID: **H15050235-008CMS3** Method: **E200.8**

Analysis Date: **05/20/15 14:37** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.91	0.030	2.5	0.3882	101	70	130				
Antimony	0.507	0.0010	0.5	0.0003861	101	70	130				
Arsenic	0.506	0.0010	0.5	0.01021	99	70	130				
Barium	0.545	0.050	0.5	0.04309	100	70	130				
Beryllium	0.231	0.0010	0.25	0	92	70	130				
Boron	0.510	0.050	0.5	0.04891	92	70	130				
Cadmium	0.238	0.0010	0.25	0.0004113	95	70	130				
Calcium	75.6	1.0	25	48	110	70	130				
Chromium	0.492	0.0050	0.5	0.0006071	98	70	130				
Cobalt	0.482	0.0050	0.5	0.0004101	96	70	130				
Copper	0.499	0.0050	0.5	0.02545	95	70	130				
Iron	3.03	0.020	2.5	0.6255	96	70	130				
Lead	0.509	0.0010	0.5	0.002576	101	70	130				
Magnesium	34.6	1.0	25	10.57	96	70	130				
Manganese	2.78	0.0010	2.5	0.3411	97	70	130				
Molybdenum	0.515	0.0010	0.5	0.004924	102	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28985

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 74** SampType: **Sample Matrix Spike** Lab ID: **H15050235-008CMS3** Method: **E200.8**

Analysis Date: **05/20/15 14:37** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	0.479	0.0050	0.5	0.001126	96	70	130				
Potassium	31.2	1.0	25	5.524	103	70	130				
Selenium	0.459	0.0010	0.5	0.000194	92	70	130				
Silver	0.0466	0.0010	0.05	0.0000611	93	70	130				
Sodium	51.6	1.0	25	27.99	95	70	130				
Uranium	0.532	0.00030	0.5	0.003825	106	70	130				
Vanadium	0.492	0.010	0.5	0.003342	98	70	130				
Zinc	0.576	0.010	0.5	0.1207	91	70	130				

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C**

Run ID :Run Order: **ICPMS204-B_150520A: 75** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-008CMSD3** Method: **E200.8**

Analysis Date: **05/20/15 14:40** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.86	0.030	2.5	0.3882	99	70	130	2.913	1.7	20	
Antimony	0.505	0.0010	0.5	0.0003861	101	70	130	0.5067	0.3	20	
Arsenic	0.498	0.0010	0.5	0.01021	97	70	130	0.5061	1.7	20	
Barium	0.539	0.050	0.5	0.04309	99	70	130	0.545	1.1	20	
Beryllium	0.234	0.0010	0.25	0	94	70	130	0.2308	1.4	20	
Boron	0.513	0.050	0.5	0.04891	93	70	130	0.5096	0.6	20	
Cadmium	0.239	0.0010	0.25	0.0004113	95	70	130	0.238	0.4	20	
Calcium	74.5	1.0	25	48	106	70	130	75.59	1.5	20	
Chromium	0.488	0.0050	0.5	0.0006071	97	70	130	0.4923	0.9	20	
Cobalt	0.485	0.0050	0.5	0.0004101	97	70	130	0.4816	0.8	20	
Copper	0.499	0.0050	0.5	0.02545	95	70	130	0.499	0.0	20	
Iron	2.95	0.020	2.5	0.6255	93	70	130	3.029	2.6	20	
Lead	0.504	0.0010	0.5	0.002576	100	70	130	0.5086	0.9	20	
Magnesium	35.1	1.0	25	10.57	98	70	130	34.6	1.3	20	
Manganese	2.76	0.0010	2.5	0.3411	97	70	130	2.777	0.5	20	
Molybdenum	0.513	0.0010	0.5	0.004924	102	70	130	0.5154	0.5	20	
Nickel	0.473	0.0050	0.5	0.001126	94	70	130	0.4792	1.2	20	
Potassium	30.8	1.0	25	5.524	101	70	130	31.23	1.5	20	
Selenium	0.454	0.0010	0.5	0.000194	91	70	130	0.4586	1.1	20	
Silver	0.0462	0.0010	0.05	0.0000611	92	70	130	0.04663	1.0	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28985

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 75** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-008CMSD3** Method: **E200.8**

Analysis Date: **05/20/15 14:40** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	52.2	1.0	25	27.99	**97**	70	130	51.65	**1.0**	20	
Uranium	0.529	0.00030	0.5	0.003825	**105**	70	130	0.5319	**0.6**	20	
Vanadium	0.488	0.010	0.5	0.003342	**97**	70	130	0.4918	**0.9**	20	
Zinc	0.582	0.010	0.5	0.1207	**92**	70	130	0.576	**1.1**	20	

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C**

Run ID :Run Order: **ICPMS204-B_150521B: 33** SampType: **Method Blank** Lab ID: **MB-28985** Method: **E200.8**

Analysis Date: **05/21/15 12:30** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	ND	6E-05									
Arsenic	ND	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	ND	0.002									
Cadmium	ND	1E-05									
Calcium	ND	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	0.0008	0.0002									
Iron	0.005	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	ND	4E-05									
Nickel	ND	3E-05									
Potassium	ND	0.02									
Selenium	ND	7E-05									
Silver	ND	5E-05									
Sodium	0.02	0.004									
Uranium	ND	5E-05									
Vanadium	0.0009	0.0001									
Zinc	0.003	0.002									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28985

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150521B: 33** SampType: **Method Blank** Lab ID: **MB-28985** Method: **E200.8**

Analysis Date: **05/21/15 12:30** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28986

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150520A: 95** SampType: **Method Blank** Lab ID: **MB-28986** Method: **E200.7**
Analysis Date: **05/20/15 17:00** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.002									
Calcium	ND	0.06									
Iron	ND	0.009									
Magnesium	ND	0.01									
Sodium	0.06	0.01									

Associated samples: **H15050235-018C**

Run ID :Run Order: **ICP2-HE_150520A: 96** SampType: **Laboratory Control Sample** Lab ID: **LCS-28986** Method: **E200.7**
Analysis Date: **05/20/15 17:04** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.530	0.050	0.5	0	106	85	115				
Calcium	27.0	1.0	25	0	108	85	115				
Iron	2.66	0.020	2.5	0	106	85	115				
Magnesium	26.7	1.0	25	0	107	85	115				
Sodium	27.2	1.0	25	0.05512	109	85	115				

Associated samples: **H15050235-018C**

Run ID :Run Order: **ICP2-HE_150520A: 98** SampType: **Serial Dilution** Lab ID: **H15050235-018CDIL** Method: **E200.7**
Analysis Date: **05/20/15 17:12** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.0401	0.050		0		0	0	0.03365		10	N
Calcium	41.3	1.0		0		0	0	43.49	5.2	10	
Iron	0.489	0.027		0		0	0	0.4879	0.2	10	
Magnesium	7.89	1.0		0		0	0	8.433	6.7	10	
Sodium	17.2	1.0		0		0	0	18.43	7.0	10	

Associated samples: **H15050235-018C**

Run ID :Run Order: **ICP2-HE_150520A: 99** SampType: **Sample Matrix Spike** Lab ID: **H15050235-018CMS3** Method: **E200.7**
Analysis Date: **05/20/15 17:16** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.557	0.050	0.5	0.03365	105	70	130				
Calcium	69.5	1.0	25	43.49	104	70	130				
Iron	3.09	0.020	2.5	0.4879	104	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28986

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150520A: 99** SampType: **Sample Matrix Spike** Lab ID: **H15050235-018CMS3** Method: **E200.7**

Analysis Date: **05/20/15 17:16** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	34.9	1.0	25	8.433	**106**	70	130				
Sodium	45.7	1.0	25	18.43	**109**	70	130				

Associated samples: **H15050235-018C**

Run ID :Run Order: **ICP2-HE_150520A: 100** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-018CMSD3** Method: **E200.7**

Analysis Date: **05/20/15 17:19** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.554	0.050	0.5	0.03365	**104**	70	130	0.5568	**0.6**	20	
Calcium	68.2	1.0	25	43.49	**99**	70	130	69.47	**1.8**	20	
Iron	3.08	0.020	2.5	0.4879	**104**	70	130	3.09	**0.4**	20	
Magnesium	34.6	1.0	25	8.433	**105**	70	130	34.86	**0.7**	20	
Sodium	44.9	1.0	25	18.43	**106**	70	130	45.72	**1.8**	20	

Associated samples: **H15050235-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28986

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 108** SampType: **Method Blank** Lab ID: **MB-28986** Method: **E200.8**

Analysis Date: **05/20/15 16:29** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.004	0.002									
Antimony	ND	6E-05									
Arsenic	7E-05	6E-05									
Barium	0.0002	0.0001									
Beryllium	ND	0.0003									
Boron	ND	0.002									
Cadmium	ND	1E-05									
Calcium	0.02	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	0.0008	0.0002									
Iron	0.002	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	ND	4E-05									
Nickel	ND	3E-05									
Potassium	ND	0.02									
Selenium	ND	7E-05									
Silver	0.0001	5E-05									
Sodium	0.05	0.004									
Uranium	ND	5E-05									
Vanadium	0.001	0.0001									
Zinc	0.002	0.002									

Associated samples: **H15050235-018C**

Run ID :Run Order: **ICPMS204-B_150520A: 109** SampType: **Laboratory Control Sample** Lab ID: **LCS-28986** Method: **E200.8**

Analysis Date: **05/20/15 16:32** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.40	0.030	2.5	0.003509	**96**	85	115				
Antimony	0.511	0.0010	0.5	0	**102**	85	115				
Arsenic	0.497	0.0010	0.5	0.0000732	**99**	85	115				
Barium	0.503	0.050	0.5	0.0001917	**101**	85	115				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28986

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 109** SampType: **Laboratory Control Sample** Lab ID: **LCS-28986** Method: **E200.8**

Analysis Date: **05/20/15 16:32** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.239	0.0010	0.25	0	96	85	115				
Boron	0.468	0.050	0.5	0	94	85	115				
Cadmium	0.246	0.0010	0.25	0	99	85	115				
Calcium	26.1	1.0	25	0.01749	104	85	115				
Chromium	0.492	0.0050	0.5	0	98	85	115				
Cobalt	0.493	0.0050	0.5	0	99	85	115				
Copper	0.486	0.0050	0.5	0.0008069	97	85	115				
Iron	2.45	0.020	2.5	0.002378	98	85	115				
Lead	0.504	0.0010	0.5	0	101	85	115				
Magnesium	24.8	1.0	25	0	99	85	115				
Manganese	2.44	0.0010	2.5	0	98	85	115				
Molybdenum	0.505	0.0010	0.5	0	101	85	115				
Nickel	0.485	0.0050	0.5	0	97	85	115				
Potassium	25.5	1.0	25	0	102	85	115				
Selenium	0.484	0.0010	0.5	0	97	85	115				
Silver	0.0479	0.0010	0.05	0.0001041	96	85	115				
Sodium	24.6	1.0	25	0.05494	98	85	115				
Uranium	0.510	0.00030	0.5	0	102	85	115				
Vanadium	0.488	0.010	0.5	0.001048	97	85	115				
Zinc	0.498	0.010	0.5	0.001877	99	85	115				

Associated samples: **H15050235-018C**

Run ID :Run Order: **ICPMS204-B_150520A: 113** SampType: **Sample Matrix Spike** Lab ID: **H15050235-018CMS3** Method: **E200.8**

Analysis Date: **05/20/15 16:45** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.88	0.030	2.5	0.3929	100	70	130				
Antimony	0.516	0.0010	0.5	0.0002465	103	70	130				
Arsenic	0.507	0.0010	0.5	0.00655	100	70	130				
Barium	0.541	0.050	0.5	0.0308	102	70	130				
Beryllium	0.237	0.0010	0.25	0	95	70	130				
Boron	0.494	0.050	0.5	0.03204	92	70	130				
Cadmium	0.244	0.0010	0.25	0.0003338	97	70	130				
Calcium	67.6	1.0	25	41.6	104	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28986

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 113** SampType: **Sample Matrix Spike** Lab ID: **H15050235-018CMS3** Method: **E200.8**

Analysis Date: **05/20/15 16:45** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.500	0.0050	0.5	0.0004745	100	70	130				
Cobalt	0.499	0.0050	0.5	0.001215	100	70	130				
Copper	0.501	0.0050	0.5	0.01983	96	70	130				
Iron	2.80	0.020	2.5	0.4603	93	70	130				
Lead	0.511	0.0010	0.5	0.002208	102	70	130				
Magnesium	32.9	1.0	25	8.303	98	70	130				
Manganese	2.64	0.0010	2.5	0.1671	99	70	130				
Molybdenum	0.511	0.0010	0.5	0.00272	102	70	130				
Nickel	0.484	0.0050	0.5	0.0008339	97	70	130				
Potassium	29.4	1.0	25	3.568	103	70	130				
Selenium	0.462	0.0010	0.5	0.0004771	92	70	130				
Silver	0.0475	0.0010	0.05	0.0001563	95	70	130				
Sodium	41.8	1.0	25	17.07	99	70	130				
Uranium	0.520	0.00030	0.5	0.002789	103	70	130				
Vanadium	0.496	0.010	0.5	0.002917	99	70	130				
Zinc	0.549	0.010	0.5	0.07417	95	70	130				

Associated samples: **H15050235-018C**

Run ID :Run Order: **ICPMS204-B_150520A: 114** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-018CMSD3** Method: **E200.8**

Analysis Date: **05/20/15 16:48** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.88	0.030	2.5	0.3929	99	70	130	2.882	0.2	20	
Antimony	0.509	0.0010	0.5	0.0002465	102	70	130	0.5159	1.3	20	
Arsenic	0.503	0.0010	0.5	0.00655	99	70	130	0.5067	0.8	20	
Barium	0.529	0.050	0.5	0.0308	100	70	130	0.5409	2.2	20	
Beryllium	0.236	0.0010	0.25	0	94	70	130	0.2368	0.3	20	
Boron	0.496	0.050	0.5	0.03204	93	70	130	0.4941	0.4	20	
Cadmium	0.242	0.0010	0.25	0.0003338	97	70	130	0.2438	0.7	20	
Calcium	66.9	1.0	25	41.6	101	70	130	67.64	1.0	20	
Chromium	0.497	0.0050	0.5	0.0004745	99	70	130	0.4995	0.5	20	
Cobalt	0.488	0.0050	0.5	0.001215	97	70	130	0.499	2.2	20	
Copper	0.496	0.0050	0.5	0.01983	95	70	130	0.5007	1.0	20	
Iron	2.88	0.020	2.5	0.4603	97	70	130	2.796	2.8	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28986

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 114** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-018CMSD3** Method: **E200.8**

Analysis Date: **05/20/15 16:48** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.505	0.0010	0.5	0.002208	**101**	70	130	0.5111	**1.2**	20	
Magnesium	32.5	1.0	25	8.303	**97**	70	130	32.89	**1.1**	20	
Manganese	2.61	0.0010	2.5	0.1671	**98**	70	130	2.638	**0.9**	20	
Molybdenum	0.506	0.0010	0.5	0.00272	**101**	70	130	0.5106	**0.8**	20	
Nickel	0.479	0.0050	0.5	0.0008339	**96**	70	130	0.4842	**1.1**	20	
Potassium	29.0	1.0	25	3.568	**102**	70	130	29.35	**1.3**	20	
Selenium	0.474	0.0010	0.5	0.0004771	**95**	70	130	0.4621	**2.5**	20	
Silver	0.0468	0.0010	0.05	0.0001563	**93**	70	130	0.04748	**1.4**	20	
Sodium	41.2	1.0	25	17.07	**96**	70	130	41.77	**1.5**	20	
Uranium	0.520	0.00030	0.5	0.002789	**103**	70	130	0.5199	**0.1**	20	
Vanadium	0.489	0.010	0.5	0.002917	**97**	70	130	0.4964	**1.5**	20	
Zinc	0.541	0.010	0.5	0.07417	**93**	70	130	0.549	**1.5**	20	

Associated samples: **H15050235-018C**

Run ID :Run Order: **ICPMS204-B_150521B: 37** SampType: **Method Blank** Lab ID: **MB-28986** Method: **E200.8**

Analysis Date: **05/21/15 12:43** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.004	0.002									
Antimony	ND	6E-05									
Arsenic	8E-05	6E-05									
Barium	0.0002	0.0001									
Beryllium	ND	0.0003									
Boron	ND	0.002									
Cadmium	ND	1E-05									
Calcium	0.010	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	0.001	0.0002									
Iron	0.003	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	ND	4E-05									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28986

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150521B: 37** SampType: **Method Blank** Lab ID: **MB-28986** Method: **E200.8**

Analysis Date: **05/21/15 12:43** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	ND	3E-05									
Potassium	ND	0.02									
Selenium	ND	7E-05									
Silver	ND	5E-05									
Sodium	0.06	0.004									
Uranium	ND	5E-05									
Vanadium	0.001	0.0001									
Zinc	0.002	0.002									

Associated samples: **H15050235-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28987

Date: *15-Jun-15*

Run ID :Run Order: **FIA202-HE_150519B: 12** SampType: **Laboratory Control Sample** Lab ID: **LCS-28987** Method: **E365.1**
Analysis Date: **05/19/15 13:05** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.392	0.010	0.4	0	98	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D**

Run ID :Run Order: **FIA202-HE_150519B: 13** SampType: **Method Blank** Lab ID: **MB-28987** Method: **E365.1**
Analysis Date: **05/19/15 13:06** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	ND	0.001									

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D**

Run ID :Run Order: **FIA202-HE_150519B: 19** SampType: **Sample Matrix Spike** Lab ID: **H15050235-002Dms** Method: **E365.1**
Analysis Date: **05/19/15 13:12** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.184	0.010	0.2	0	92	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D**

Run ID :Run Order: **FIA202-HE_150519B: 20** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-002Dmsd** Method: **E365.1**
Analysis Date: **05/19/15 13:13** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.174	0.010	0.2	0	87	90	110	0.1836	5.2	20	S

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D**

Run ID :Run Order: **FIA202-HE_150521B: 12** SampType: **Laboratory Control Sample** Lab ID: **LCS-28987** Method: **E365.1**
Analysis Date: **05/21/15 13:44** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.370	0.010	0.4	0	93	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28987

Date: *15-Jun-15*

Run ID :Run Order: **FIA202-HE_150521B: 13** SampType: **Method Blank** Lab ID: **MB-28987** Method: **E365.1**
Analysis Date: **05/21/15 13:45** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	ND	0.001									

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D**

Run ID :Run Order: **FIA202-HE_150521B: 18** SampType: **Sample Matrix Spike** Lab ID: **H15050235-011DMS** Method: **E365.1**
Analysis Date: **05/21/15 13:50** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.207	0.010	0.2	0	**104**	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D**

Run ID :Run Order: **FIA202-HE_150521B: 19** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-011DMSD** Method: **E365.1**
Analysis Date: **05/21/15 13:51** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.205	0.010	0.2	0	**103**	90	110	0.2074	**1.1**	20	

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D**

Run ID :Run Order: **FIA202-HE_150521B: 46** SampType: **Sample Matrix Spike** Lab ID: **H15050235-011DMS** Method: **E365.1**
Analysis Date: **05/21/15 14:19** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.210	0.010	0.2	0	**105**	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D**

Run ID :Run Order: **FIA202-HE_150521B: 47** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-011DMSD** Method: **E365.1**
Analysis Date: **05/21/15 14:20** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.206	0.010	0.2	0	**103**	90	110	0.2103	**2.1**	20	

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28988

Date: *15-Jun-15*

Run ID :Run Order: **FIA202-HE_150519B: 42** SampType: **Laboratory Control Sample** Lab ID: **LCS-28988** Method: **E365.1**
Analysis Date: **05/19/15 13:35** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.393	0.010	0.4	0	**98**	90	110				

Associated samples: **H15050235-018D**

Run ID :Run Order: **FIA202-HE_150519B: 43** SampType: **Method Blank** Lab ID: **MB-28988** Method: **E365.1**
Analysis Date: **05/19/15 13:36** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	ND	0.001									

Associated samples: **H15050235-018D**

Run ID :Run Order: **FIA202-HE_150519B: 45** SampType: **Sample Matrix Spike** Lab ID: **H15050235-018Dms** Method: **E365.1**
Analysis Date: **05/19/15 13:38** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.321	0.010	0.2	0.1304	**95**	90	110				

Associated samples: **H15050235-018D**

Run ID :Run Order: **FIA202-HE_150519B: 46** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-018Dmsd** Method: **E365.1**
Analysis Date: **05/19/15 13:39** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.320	0.010	0.2	0.1304	**95**	90	110	0.3208	**0.1**	20	

Associated samples: **H15050235-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28989

Date: *15-Jun-15*

Run ID :Run Order: **FIA203-HE_150520A: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-28989** Method: **A4500 N-C**
Analysis Date: **05/20/15 09:25** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	14.8	0.30	15.2	0	97	90	110				

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A**

Run ID :Run Order: **FIA203-HE_150520A: 12** SampType: **Method Blank** Lab ID: **MB-28989** Method: **A4500 N-C**
Analysis Date: **05/20/15 09:26** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	ND	0.005									

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A**

Run ID :Run Order: **FIA203-HE_150520A: 18** SampType: **Sample Matrix Spike** Lab ID: **H15050235-002Ams** Method: **A4500 N-C**
Analysis Date: **05/20/15 09:33** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.952	0.10	1	0	95	90	110				

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A**

Run ID :Run Order: **FIA203-HE_150520A: 19** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-002Amsd** Method: **A4500 N-C**
Analysis Date: **05/20/15 09:35** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.931	0.10	1	0	93	90	110	0.9518	2.2	20	

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28990

Date: *15-Jun-15*

Run ID :Run Order: **FIA203-HE_150520A: 41** SampType: **Laboratory Control Sample** Lab ID: **LCS-28990** Method: **A4500 N-C**
Analysis Date: **05/20/15 10:01** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	14.8	0.30	15.2	0	98	90	110				

Associated samples: **H15050235-018A**

Run ID :Run Order: **FIA203-HE_150520A: 42** SampType: **Method Blank** Lab ID: **MB-28990** Method: **A4500 N-C**
Analysis Date: **05/20/15 10:02** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	ND	0.005									

Associated samples: **H15050235-018A**

Run ID :Run Order: **FIA203-HE_150520A: 44** SampType: **Sample Matrix Spike** Lab ID: **H15050235-018Ams** Method: **A4500 N-C**
Analysis Date: **05/20/15 10:04** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	1.86	0.10	1	1.018	84	90	110				S

Associated samples: **H15050235-018A**

Run ID :Run Order: **FIA203-HE_150520A: 45** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-018Amsd** Method: **A4500 N-C**
Analysis Date: **05/20/15 10:06** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	1.82	0.10	1	1.018	80	90	110	1.861	2.4	20	S

Associated samples: **H15050235-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 28991

Date: *15-Jun-15*

Run ID :Run Order: **HGCV202-H_150519A: 20** SampType: **Method Blank** Lab ID: **MB-28991** Method: **E245.1**
Analysis Date: **05/19/15 15:43** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	1E-06									

Associated samples: **H15050235-018B, H15050235-018C**

Run ID :Run Order: **HGCV202-H_150519A: 21** SampType: **Laboratory Control Sample** Lab ID: **LCS-28991** Method: **E245.1**
Analysis Date: **05/19/15 15:47** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00015	0.00010	0.00015	0	**97**	90	110				

Associated samples: **H15050235-018B, H15050235-018C**

Run ID :Run Order: **HGCV202-H_150519A: 23** SampType: **Sample Matrix Spike** Lab ID: **H15050235-018BMS** Method: **E245.1**
Analysis Date: **05/19/15 15:54** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00015	0.00010	0.00015	0.00000249	**96**	70	130				

Associated samples: **H15050235-018B, H15050235-018C**

Run ID :Run Order: **HGCV202-H_150519A: 24** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-018BMSD** Method: **E245.1**
Analysis Date: **05/19/15 15:58** Units: **mg/L** **Prep Info:** Prep Date: **5/19/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00015	0.00010	0.00015	0.00000249	**97**	70	130	0.0001467	**0.8**	20	

Associated samples: **H15050235-018B, H15050235-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29018

Date: *15-Jun-15*

Run ID :Run Order: **FIA203-HE_150522A: 12** SampType: **Laboratory Control Sample** Lab ID: **LCS-29018** Method: **A4500 N-C**
Analysis Date: **05/22/15 09:36** Units: **mg/L** **Prep Info:** Prep Date: **5/21/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	15.4	0.30	15.2	0.1079	101	90	110				

Associated samples: **H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A**

Run ID :Run Order: **FIA203-HE_150522A: 13** SampType: **Method Blank** Lab ID: **MB-29018** Method: **A4500 N-C**
Analysis Date: **05/22/15 09:37** Units: **mg/L** **Prep Info:** Prep Date: **5/21/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.1	0.005									

Associated samples: **H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A**

Run ID :Run Order: **FIA203-HE_150522A: 19** SampType: **Sample Matrix Spike** Lab ID: **H15050235-011Ams** Method: **A4500 N-C**
Analysis Date: **05/22/15 09:44** Units: **mg/L** **Prep Info:** Prep Date: **5/21/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.984	0.10	1	0.04401	94	90	110				

Associated samples: **H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A**

Run ID :Run Order: **FIA203-HE_150522A: 20** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-011Amsd** Method: **A4500 N-C**
Analysis Date: **05/22/15 09:46** Units: **mg/L** **Prep Info:** Prep Date: **5/21/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.950	0.10	1	0.04401	91	90	110	0.9844	3.6	20	

Associated samples: **H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A**

Run ID :Run Order: **FIA203-HE_150522A: 29** SampType: **Sample Matrix Spike** Lab ID: **H15050235-017Ams** Method: **A4500 N-C**
Analysis Date: **05/22/15 09:56** Units: **mg/L** **Prep Info:** Prep Date: **5/21/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	1.90	0.10	1	1.143	75	90	110				S

Associated samples: **H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29018

Date: *15-Jun-15*

Run ID :Run Order: **FIA203-HE_150522A: 30** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-017Amsd** Method: **A4500 N-C**

Analysis Date: **05/22/15 09:58** Units: **mg/L** **Prep Info:** Prep Date: **5/21/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	1.86	0.10	1	1.143	72	90	110	1.895	1.6	20	S

Associated samples: **H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29065

Date: *15-Jun-15*

Run ID :Run Order: **HGCV201-H_150528A: 10** SampType: **Method Blank** Lab ID: **MB-29065** Method: **SW7471B**
Analysis Date: **05/28/15 10:14** Units: **mg/kg** **Prep Info:** Prep Date: **5/27/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.010									

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A**

Run ID :Run Order: **HGCV201-H_150528A: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-29065** Method: **SW7471B**
Analysis Date: **05/28/15 10:17** Units: **mg/kg** **Prep Info:** Prep Date: **5/27/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.0	0.50	5.005	0	**99**	80	120				

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A**

Run ID :Run Order: **HGCV201-H_150528A: 12** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29065** Method: **SW7471B**
Analysis Date: **05/28/15 10:20** Units: **mg/kg** **Prep Info:** Prep Date: **5/27/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.99	0.50	1	0	**99**	80	120				

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A**

Run ID :Run Order: **HGCV201-H_150528A: 14** SampType: **Sample Matrix Spike** Lab ID: **H15050235-019AMS** Method: **SW7471B**
Analysis Date: **05/28/15 10:25** Units: **mg/kg-dry** **Prep Info:** Prep Date: **5/27/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	3.1	0.50	2.471	0.5964	**100**	80	120				

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A**

Run ID :Run Order: **HGCV201-H_150528A: 15** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-019AMSD** Method: **SW7471B**
Analysis Date: **05/28/15 10:27** Units: **mg/kg-dry** **Prep Info:** Prep Date: **5/27/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	3.4	0.50	2.476	0.5964	**113**	80	120	3.059	**10**	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29065

Date: *15-Jun-15*

Run ID :Run Order: **HGCV201-H_150528A: 15** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-019AMSD** Method: **SW7471B**
Analysis Date: **05/28/15 10:27** Units: **mg/kg-dry** **Prep Info:** Prep Date: **5/27/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A**

Run ID :Run Order: **HGCV201-H_150528A: 49** SampType: **Sample Matrix Spike** Lab ID: **H15050235-029AMS** Method: **SW7471B**
Analysis Date: **05/28/15 12:07** Units: **mg/kg-dry** **Prep Info:** Prep Date: **5/27/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.7	0.50	1.242	0.4039	104	80	120				

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A**

Run ID :Run Order: **HGCV201-H_150528A: 50** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-029AMSD** Method: **SW7471B**
Analysis Date: **05/28/15 12:10** Units: **mg/kg-dry** **Prep Info:** Prep Date: **5/27/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.9	0.50	1.228	0.4039	119	80	120	1.693	9.9	20	

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A**

Run ID :Run Order: **HGCV201-H_150601A: 38** SampType: **Method Blank** Lab ID: **MB-29065** Method: **SW7471B**
Analysis Date: **06/01/15 12:59** Units: **mg/kg** **Prep Info:** Prep Date: **5/27/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.010									

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A**

Run ID :Run Order: **HGCV201-H_150601A: 39** SampType: **Laboratory Control Sample** Lab ID: **LCS-29065** Method: **SW7471B**
Analysis Date: **06/01/15 13:01** Units: **mg/kg** **Prep Info:** Prep Date: **5/27/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.7	0.50	5.005	0	94	80	120				

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29065

Date: *15-Jun-15*

Run ID :Run Order: **HGCV201-H_150601A: 40** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29065** Method: **SW7471B**

Analysis Date: **06/01/15 13:04** Units: **mg/kg** **Prep Info:** Prep Date: **5/27/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.99	0.50	1	0	99	80	120				

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A**

Run ID :Run Order: **HGCV201-H_150601A: 44** SampType: **Sample Matrix Spike** Lab ID: **H15050235-029AMS** Method: **SW7471B**

Analysis Date: **06/01/15 13:14** Units: **mg/kg-dry** **Prep Info:** Prep Date: **5/27/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.8	0.50	1.242	0.3929	113	80	120				

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A**

Run ID :Run Order: **HGCV201-H_150601A: 45** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-029AMSD** Method: **SW7471B**

Analysis Date: **06/01/15 13:17** Units: **mg/kg-dry** **Prep Info:** Prep Date: **5/27/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.7	0.50	1.228	0.3929	109	80	120	1.796	3.4	20	

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29086

Date: *15-Jun-15*

Run ID :Run Order: **HGCV201-H_150601A: 10** SampType: **Method Blank** Lab ID: **MB-29086** Method: **SW7471B**
Analysis Date: **06/01/15 11:38** Units: **mg/kg** **Prep Info:** Prep Date: **5/29/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.010									

Associated samples: **H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A**

Run ID :Run Order: **HGCV201-H_150601A: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-29086** Method: **SW7471B**
Analysis Date: **06/01/15 11:40** Units: **mg/kg** **Prep Info:** Prep Date: **5/29/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.5	0.50	4.995	0	91	80	120				

Associated samples: **H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A**

Run ID :Run Order: **HGCV201-H_150601A: 12** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29086** Method: **SW7471B**
Analysis Date: **06/01/15 11:43** Units: **mg/kg** **Prep Info:** Prep Date: **5/29/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.0	0.50	1	0	104	80	120				

Associated samples: **H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A**

Run ID :Run Order: **HGCV201-H_150601A: 15** SampType: **Sample Matrix Spike** Lab ID: **H15050235-038AMS** Method: **SW7471B**
Analysis Date: **06/01/15 11:51** Units: **mg/kg-dry** **Prep Info:** Prep Date: **5/29/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.4	0.50	1.307	0.04579	102	80	120				

Associated samples: **H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A**

Run ID :Run Order: **HGCV201-H_150601A: 16** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-038AMSD** Method: **SW7471B**
Analysis Date: **06/01/15 11:53** Units: **mg/kg-dry** **Prep Info:** Prep Date: **5/29/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.4	0.50	1.305	0.04579	107	80	120	1.373	4.5	20	

Associated samples: **H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29086

Date: *15-Jun-15*

Run ID :Run Order: **HGCV201-H_150601A: 30** SampType: **Sample Matrix Spike** Lab ID: **H15050235-048AMS** Method: **SW7471B**

Analysis Date: **06/01/15 12:30** Units: **mg/kg-dry** **Prep Info:** Prep Date: **5/29/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.5	0.50	1.353	0.03105	105	80	120				

Associated samples: **H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A**

Run ID :Run Order: **HGCV201-H_150601A: 31** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-048AMSD** Method: **SW7471B**

Analysis Date: **06/01/15 12:33** Units: **mg/kg-dry** **Prep Info:** Prep Date: **5/29/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.5	0.50	1.357	0.03105	109	80	120	1.455	3.9	20	

Associated samples: **H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29120

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150603B: 113** SampType: **Method Blank** Lab ID: **MB-29120** Method: **SW6010B**
Analysis Date: **06/04/15 08:10** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.8	0.3									
Boron	ND	0.10									
Copper	0.3	0.2									
Iron	3	0.6									
Manganese	0.09	0.02									

Associated samples: **H15050235-019A, H15050235-022A, H15050235-025A, H15050235-028A, H15050235-031A, H15050235-034A, H15050235-037A, H15050235-040A, H15050235-043A, H15050235-046A, H15050235-049A, H15050235-052A, H15050235-055A, H15050235-058A**

Run ID :Run Order: **ICP2-HE_150603B: 114** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29120** Method: **SW6010B**
Analysis Date: **06/04/15 08:14** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	246	5.0	245.7	0.7812	100	80	120				
Boron	47.1	1.0	49.13	0	96	80	120				
Copper	49.0	1.0	49.13	0.2651	99	80	120				
Iron	247	5.0	245.7	2.83	99	80	120				
Manganese	235	1.0	245.7	0.08739	96	80	120				

Associated samples: **H15050235-019A, H15050235-022A, H15050235-025A, H15050235-028A, H15050235-031A, H15050235-034A, H15050235-037A, H15050235-040A, H15050235-043A, H15050235-046A, H15050235-049A, H15050235-052A, H15050235-055A, H15050235-058A**

Run ID :Run Order: **ICP2-HE_150603B: 115** SampType: **Laboratory Control Sample** Lab ID: **LCS-29120** Method: **SW6010B**
Analysis Date: **06/04/15 08:18** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	12100	6.6	18600	0.7812	65	0	201.6				
Boron	202	1.0	197	0	103	59.9	140.1				
Copper	104	2.2	107	0.2651	97	74.5	125.2				
Iron	8030	5.8	8260	2.83	97	12.5	187.7				
Manganese	692	1.0	760	0.08739	91	78.3	121.7				

Associated samples: **H15050235-019A, H15050235-022A, H15050235-025A, H15050235-028A, H15050235-031A, H15050235-034A, H15050235-037A, H15050235-040A, H15050235-043A, H15050235-046A, H15050235-049A, H15050235-052A, H15050235-055A, H15050235-058A**

Run ID :Run Order: **ICP2-HE_150603B: 138** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15050235-058APDS** Method: **SW6010B**
Analysis Date: **06/04/15 09:43** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	35100	8.7	3263	31680		75	125				A

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29120

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150603B: 138** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15050235-058APDS** Method: **SW6010B**

Analysis Date: **06/04/15 09:43** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	580	1.4	652.7	11.74	87	75	125				
Copper	1360	2.9	652.7	774.7	89	75	125				
Iron	44100	7.7	3263	41240		75	125				A
Manganese	6790	1.0	3263	3986	86	75	125				

Associated samples: **H15050235-019A, H15050235-022A, H15050235-025A, H15050235-028A, H15050235-031A, H15050235-034A, H15050235-037A, H15050235-040A, H15050235-043A, H15050235-046A, H15050235-049A, H15050235-052A, H15050235-055A, H15050235-058A**

Run ID :Run Order: **ICP2-HE_150603B: 139** SampType: **Sample Matrix Spike** Lab ID: **H15050235-058AMS** Method: **SW6010B**

Analysis Date: **06/04/15 09:46** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	37700	8.7	650.9	31680		75	125				A
Boron	132	1.3	130.2	11.74	92	75	125				
Copper	913	2.9	130.2	774.7		75	125				A
Iron	44300	7.7	650.9	41240		75	125				A
Manganese	4730	1.0	650.9	3986		75	125				A

Associated samples: **H15050235-019A, H15050235-022A, H15050235-025A, H15050235-028A, H15050235-031A, H15050235-034A, H15050235-037A, H15050235-040A, H15050235-043A, H15050235-046A, H15050235-049A, H15050235-052A, H15050235-055A, H15050235-058A**

Run ID :Run Order: **ICP2-HE_150603B: 149** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-058AMSD** Method: **SW6010B**

Analysis Date: **06/04/15 10:23** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41100	8.6	642.5	31680		75	125	37660	8.8	20	A
Boron	128	1.3	128.5	11.74	91	75	125	132	2.7	20	
Copper	946	2.8	128.5	774.7		75	125	912.6	3.6	20	A
Iron	48500	7.6	642.5	41240		75	125	44310	9.0	20	A
Manganese	5170	1.0	642.5	3986		75	125	4728	8.9	20	A

Associated samples: **H15050235-019A, H15050235-022A, H15050235-025A, H15050235-028A, H15050235-031A, H15050235-034A, H15050235-037A, H15050235-040A, H15050235-043A, H15050235-046A, H15050235-049A, H15050235-052A, H15050235-055A, H15050235-058A**

Run ID :Run Order: **ICP2-HE_150605B: 113** SampType: **Method Blank** Lab ID: **MB-29120** Method: **SW6010B**

Analysis Date: **06/06/15 00:06** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1	0.3									
Boron	0.2	0.10									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29120

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150605B: 113** SampType: **Method Blank** Lab ID: **MB-29120** Method: **SW6010B**

Analysis Date: **06/06/15 00:06** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.6	0.2									
Iron	3	0.6									
Manganese	0.05	0.02									

Associated samples: **H15050235-019A, H15050235-022A, H15050235-025A, H15050235-028A, H15050235-031A, H15050235-034A, H15050235-037A, H15050235-040A, H15050235-043A, H15050235-046A, H15050235-049A, H15050235-052A, H15050235-055A, H15050235-058A**

Run ID :Run Order: **ICP2-HE_150608A: 101** SampType: **Method Blank** Lab ID: **MB-29120** Method: **SW6010B**

Analysis Date: **06/08/15 20:17** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1	0.3									
Boron	ND	0.10									
Copper	0.5	0.2									
Iron	3	0.6									
Manganese	0.04	0.02									

Associated samples: **H15050235-019A, H15050235-022A, H15050235-025A, H15050235-028A, H15050235-031A, H15050235-034A, H15050235-037A, H15050235-040A, H15050235-043A, H15050235-046A, H15050235-049A, H15050235-052A, H15050235-055A, H15050235-058A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29120

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 36** SampType: **Method Blank** Lab ID: **MB-29120** Method: **SW6020**

Analysis Date: **06/02/15 22:18** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.1	0.07									
Arsenic	0.1	0.05									
Barium	ND	0.4									
Beryllium	ND	0.1									
Cadmium	ND	0.1									
Chromium	0.05	0.04									
Cobalt	ND	0.03									
Copper	5	0.1									
Iron	ND	5									
Lead	ND	0.09									
Manganese	ND	0.2									
Molybdenum	ND	0.09									
Nickel	ND	0.1									
Selenium	ND	0.1									
Silver	ND	0.05									
Uranium	ND	0.06									
Vanadium	ND	0.4									
Zinc	2	0.7									

Associated samples: **H15050235-019A, H15050235-022A, H15050235-025A, H15050235-028A, H15050235-031A, H15050235-034A, H15050235-037A, H15050235-040A, H15050235-043A, H15050235-046A, H15050235-049A, H15050235-052A, H15050235-055A, H15050235-058A**

Run ID :Run Order: **ICPMS204-B_150602B: 37** SampType: **Laboratory Control Sample** Lab ID: **LCS-29120** Method: **SW6020**

Analysis Date: **06/02/15 22:21** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	80.4	1.0	127	0.1226	**63**	0	251.2				
Arsenic	101	1.0	96.2	0.1067	**105**	69.2	131				
Barium	885	1.0	904	0	**98**	74.8	125				
Beryllium	248	1.0	231	0	**107**	75.8	125.2				
Cadmium	395	1.0	384	0	**103**	73.4	126.6				
Chromium	221	1.0	213	0.04621	**104**	70.9	129.6				
Cobalt	143	1.0	138	0	**104**	73.9	125.4				
Copper	118	1.0	107	5.07	**106**	74.5	125.2				
Iron	8700	9.4	8260	0	**105**	12.5	187.7				
Lead	194	1.0	188	0	**103**	74.5	125.5				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29120

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 37** SampType: **Laboratory Control Sample** Lab ID: **LCS-29120** Method: **SW6020**

Analysis Date: **06/02/15 22:21** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	744	1.0	760	0	98	78.3	121.7				
Molybdenum	77.6	1.0	77	0	101	68.8	131.2				
Nickel	255	1.0	241	0	106	74.3	125.7				
Selenium	317	1.0	295	0	108	69.5	130.2				
Silver	28.6	1.0	25.6	0	112	64.5	135.5				
Uranium	1.62	1.0		0		0	0				
Vanadium	112	1.0	110	0	102	67.2	133.6				
Zinc	756	1.4	707	1.962	107	73.8	126.3				

Associated samples: **H15050235-019A, H15050235-022A, H15050235-025A, H15050235-028A, H15050235-031A, H15050235-034A, H15050235-037A, H15050235-040A, H15050235-043A, H15050235-046A, H15050235-049A, H15050235-052A, H15050235-055A, H15050235-058A**

Run ID :Run Order: **ICPMS204-B_150602B: 38** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29120** Method: **SW6020**

Analysis Date: **06/02/15 22:24** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	51.9	1.0	49.13	0.1226	105	80	120				
Arsenic	50.3	1.0	49.13	0.1067	102	80	120				
Barium	51.4	1.0	49.13	0	105	80	120				
Beryllium	26.5	1.0	24.57	0	108	80	120				
Cadmium	26.0	1.0	24.57	0	106	80	120				
Chromium	51.2	1.0	49.13	0.04621	104	80	120				
Cobalt	50.9	1.0	49.13	0	104	80	120				
Copper	56.1	1.0	49.13	5.07	104	80	120				
Iron	274	5.0	245.7	0	111	80	120				
Lead	51.2	1.0	49.13	0	104	80	120				
Manganese	255	1.0	245.7	0	104	80	120				
Molybdenum	51.0	1.0	49.13	0	104	80	120				
Nickel	51.5	1.0	49.13	0	105	80	120				
Selenium	50.3	1.0	49.13	0	102	80	120				
Silver	25.6	1.0	24.57	0	104	80	120				
Uranium	49.6	1.0	49.13	0	101	80	120				
Vanadium	49.7	1.0	49.13	0	101	80	120				
Zinc	52.6	1.0	49.13	1.962	103	80	120				

Associated samples: **H15050235-019A, H15050235-022A, H15050235-025A, H15050235-028A, H15050235-031A, H15050235-034A, H15050235-037A, H15050235-040A, H15050235-043A, H15050235-046A, H15050235-049A, H15050235-052A, H15050235-055A, H15050235-058A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29120

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 61** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15050235-058APDS** Method: **SW6020**

Analysis Date: **06/02/15 23:36** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	1180	1.0	1267	1.631	93	75	125				
Arsenic	1280	1.0	1267	88.16	94	75	125				
Barium	1520	1.0	1267	361.5	92	75	125				
Beryllium	585	1.0	633.7	1.871	92	75	125				
Cadmium	599	1.0	633.7	9.895	93	75	125				
Chromium	1210	1.0	1267	50.99	92	75	125				
Cobalt	1160	1.0	1267	16.96	90	75	125				
Copper	1870	1.0	1267	868.2	79	75	125				
Iron	46300	12	6337	44130		75	125				A
Lead	1530	1.0	1267	426.4	87	75	125				
Manganese	9410	1.0	6337	4222	82	75	125				
Molybdenum	1180	1.0	1267	3.431	93	75	125				
Nickel	1210	1.0	1267	29.95	93	75	125				
Selenium	1090	1.0	1267	1.209	86	75	125				
Silver	465	1.0	633.7	4.962	73	75	125				S
Uranium	1150	1.0	1267	4.228	90	75	125				
Vanadium	1240	1.1	1267	96.52	90	75	125				
Zinc	3280	1.8	1267	2348	74	75	125				S

Associated samples: **H15050235-019A, H15050235-022A, H15050235-025A, H15050235-028A, H15050235-031A, H15050235-034A, H15050235-037A, H15050235-040A, H15050235-043A, H15050235-046A, H15050235-049A, H15050235-052A, H15050235-055A, H15050235-058A**

Run ID :Run Order: **ICPMS204-B_150602B: 62** SampType: **Sample Matrix Spike** Lab ID: **H15050235-058AMS** Method: **SW6020**

Analysis Date: **06/02/15 23:39** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	43.7	1.0	130.2	1.631	32	75	125				S
Arsenic	224	1.0	130.2	88.16	104	75	125				
Barium	508	1.0	130.2	361.5	112	75	125				
Beryllium	67.4	1.0	65.09	1.871	101	75	125				
Cadmium	77.6	1.0	65.09	9.895	104	75	125				
Chromium	188	1.0	130.2	50.99	105	75	125				
Cobalt	150	1.0	130.2	16.96	103	75	125				
Copper	1010	1.0	130.2	868.2		75	125				A
Iron	47500	12	650.9	44130		75	125				A
Lead	566	1.0	130.2	426.4	107	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29120

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 62** SampType: **Sample Matrix Spike** Lab ID: **H15050235-058AMS** Method: **SW6020**

Analysis Date: **06/02/15 23:39** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	4980	1.0	650.9	4222		75	125				A
Molybdenum	133	1.0	130.2	3.431	100	75	125				
Nickel	165	1.0	130.2	29.95	104	75	125				
Selenium	128	1.0	130.2	1.209	97	75	125				
Silver	71.9	1.0	65.09	4.962	103	75	125				
Uranium	135	1.0	130.2	4.228	101	75	125				
Vanadium	231	1.1	130.2	96.52	104	75	125				
Zinc	2500	1.8	130.2	2348		75	125				A

Associated samples: **H15050235-019A, H15050235-022A, H15050235-025A, H15050235-028A, H15050235-031A, H15050235-034A, H15050235-037A, H15050235-040A, H15050235-043A, H15050235-046A, H15050235-049A, H15050235-052A, H15050235-055A, H15050235-058A**

Run ID :Run Order: **ICPMS204-B_150602B: 63** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-058AMSD** Method: **SW6020**

Analysis Date: **06/02/15 23:42** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	41.6	1.0	128.5	1.631	31	75	125	43.74	4.9	20	S
Arsenic	229	1.0	128.5	88.16	110	75	125	223.7	2.5	20	
Barium	572	1.0	128.5	361.5	164	75	125	507.8	12	20	S
Beryllium	67.6	1.0	64.25	1.871	102	75	125	67.4	0.3	20	
Cadmium	76.6	1.0	64.25	9.895	104	75	125	77.63	1.3	20	
Chromium	190	1.0	128.5	50.99	108	75	125	188.1	0.8	20	
Cobalt	151	1.0	128.5	16.96	104	75	125	150.5	0.2	20	
Copper	1040	1.0	128.5	868.2		75	125	1012	3.0	20	A
Iron	52000	12	642.5	44130		75	125	47480	9.2	20	A
Lead	562	1.0	128.5	426.4	106	75	125	565.6	0.6	20	
Manganese	5350	1.0	642.5	4222		75	125	4978	7.2	20	A
Molybdenum	133	1.0	128.5	3.431	101	75	125	133	0.1	20	
Nickel	164	1.0	128.5	29.95	104	75	125	164.8	0.4	20	
Selenium	123	1.0	128.5	1.209	95	75	125	128.1	3.8	20	
Silver	71.9	1.0	64.25	4.962	104	75	125	71.93	0.1	20	
Uranium	133	1.0	128.5	4.228	100	75	125	135.3	1.5	20	
Vanadium	239	1.1	128.5	96.52	111	75	125	231.5	3.3	20	
Zinc	2590	1.8	128.5	2348		75	125	2501	3.3	20	A

Associated samples: **H15050235-019A, H15050235-022A, H15050235-025A, H15050235-028A, H15050235-031A, H15050235-034A, H15050235-037A, H15050235-040A, H15050235-043A, H15050235-046A, H15050235-049A, H15050235-052A, H15050235-055A, H15050235-058A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29121

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150603B: 150** SampType: **Method Blank** Lab ID: **MB-29121** Method: **SW6010B**
Analysis Date: **06/04/15 10:27** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1	0.3									
Boron	ND	0.1									

Associated samples: **H15050235-020A, H15050235-023A, H15050235-026A, H15050235-029A, H15050235-032A, H15050235-035A, H15050235-038A, H15050235-041A, H15050235-044A, H15050235-047A, H15050235-050A, H15050235-053A, H15050235-056A, H15050235-059A**

Run ID :Run Order: **ICP2-HE_150603B: 151** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29121** Method: **SW6010B**
Analysis Date: **06/04/15 10:31** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	244	5.0	238.7	1.226	101	80	120				
Boron	46.2	1.0	47.74	0	97	80	120				

Associated samples: **H15050235-020A, H15050235-023A, H15050235-026A, H15050235-029A, H15050235-032A, H15050235-035A, H15050235-038A, H15050235-041A, H15050235-044A, H15050235-047A, H15050235-050A, H15050235-053A, H15050235-056A, H15050235-059A**

Run ID :Run Order: **ICP2-HE_150603B: 152** SampType: **Laboratory Control Sample** Lab ID: **LCS-29121** Method: **SW6010B**
Analysis Date: **06/04/15 10:35** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	13900	6.2	18600	1.226	75	0	201.6				
Boron	217	1.0	197	0	110	59.9	140.1				

Associated samples: **H15050235-020A, H15050235-023A, H15050235-026A, H15050235-029A, H15050235-032A, H15050235-035A, H15050235-038A, H15050235-041A, H15050235-044A, H15050235-047A, H15050235-050A, H15050235-053A, H15050235-056A, H15050235-059A**

Run ID :Run Order: **ICP2-HE_150603B: 175** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15050235-059APDS** Method: **SW6010B**
Analysis Date: **06/04/15 11:59** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	7520	5.0	1753	5951	89	75	125				
Boron	319	1.0	350.6	0	91	75	125				

Associated samples: **H15050235-020A, H15050235-023A, H15050235-026A, H15050235-029A, H15050235-032A, H15050235-035A, H15050235-038A, H15050235-041A, H15050235-044A, H15050235-047A, H15050235-050A, H15050235-053A, H15050235-056A, H15050235-059A**

Run ID :Run Order: **ICP2-HE_150603B: 176** SampType: **Sample Matrix Spike** Lab ID: **H15050235-059AMS** Method: **SW6010B**
Analysis Date: **06/04/15 12:03** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	7600	5.0	334.3	5951		75	125				A
Boron	64.2	1.0	66.86	0	96	75	125				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29121

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150603B: 176** SampType: **Sample Matrix Spike** Lab ID: **H15050235-059AMS** Method: **SW6010B**

Analysis Date: **06/04/15 12:03** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15050235-020A, H15050235-023A, H15050235-026A, H15050235-029A, H15050235-032A, H15050235-035A, H15050235-038A, H15050235-041A, H15050235-044A, H15050235-047A, H15050235-050A, H15050235-053A, H15050235-056A, H15050235-059A**

Run ID :Run Order: **ICP2-HE_150603B: 177** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-059AMSD** Method: **SW6010B**

Analysis Date: **06/04/15 12:07** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	7830	5.0	341.6	5951		75	125	7600	3.0	20	A
Boron	68.1	1.0	68.32	0	100	75	125	64.18	5.9	20	

Associated samples: **H15050235-020A, H15050235-023A, H15050235-026A, H15050235-029A, H15050235-032A, H15050235-035A, H15050235-038A, H15050235-041A, H15050235-044A, H15050235-047A, H15050235-050A, H15050235-053A, H15050235-056A, H15050235-059A**

Run ID :Run Order: **ICP2-HE_150605B: 121** SampType: **Method Blank** Lab ID: **MB-29121** Method: **SW6010B**

Analysis Date: **06/06/15 00:36** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2	0.7									
Boron	ND	0.1									

Associated samples: **H15050235-020A, H15050235-023A, H15050235-026A, H15050235-029A, H15050235-032A, H15050235-035A, H15050235-038A, H15050235-041A, H15050235-044A, H15050235-047A, H15050235-050A, H15050235-053A, H15050235-056A, H15050235-059A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29121

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 67** SampType: **Method Blank** Lab ID: **MB-29121** Method: **SW6020**

Analysis Date: **06/02/15 23:55** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.1	0.05									
Barium	ND	0.4									
Beryllium	ND	0.1									
Cadmium	ND	0.2									
Chromium	0.09	0.04									
Cobalt	ND	0.03									
Copper	2	0.1									
Iron	20	5									
Lead	0.1	0.09									
Manganese	0.9	0.2									
Molybdenum	ND	0.09									
Nickel	ND	0.1									
Selenium	ND	0.1									
Silver	0.06	0.05									
Uranium	ND	0.06									
Vanadium	0.9	0.4									
Zinc	2	0.7									

Associated samples: **H15050235-020A, H15050235-023A, H15050235-026A, H15050235-029A, H15050235-032A, H15050235-035A, H15050235-038A, H15050235-041A, H15050235-044A, H15050235-047A, H15050235-050A, H15050235-053A, H15050235-056A, H15050235-059A**

Run ID :Run Order: **ICPMS204-B_150602B: 68** SampType: **Laboratory Control Sample** Lab ID: **LCS-29121** Method: **SW6020**

Analysis Date: **06/02/15 23:58** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	84.5	1.0	127	0	**67**	0	251.2				
Arsenic	102	1.0	96.2	0.1155	**106**	69.2	131				
Barium	986	1.0	904	0	**109**	74.8	125				
Beryllium	250	1.0	231	0	**108**	75.8	125.2				
Cadmium	394	1.0	384	0	**103**	73.4	126.6				
Chromium	226	1.0	213	0.09297	**106**	70.9	129.6				
Cobalt	147	1.0	138	0	**106**	73.9	125.4				
Copper	114	1.0	107	1.56	**105**	74.5	125.2				
Iron	8790	8.9	8260	17.47	**106**	12.5	187.7				
Lead	198	1.0	188	0.1208	**105**	74.5	125.5				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29121

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 68** SampType: **Laboratory Control Sample** Lab ID: **LCS-29121** Method: **SW6020**

Analysis Date: **06/02/15 23:58** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	673	1.0	760	0.9431	88	78.3	121.7				
Molybdenum	80.4	1.0	77	0	104	68.8	131.2				
Nickel	261	1.0	241	0	108	74.3	125.7				
Selenium	313	1.0	295	0	106	69.5	130.2				
Silver	28.5	1.0	25.6	0.05741	111	64.5	135.5				
Uranium	1.75	1.0		0		0	0				
Vanadium	115	1.0	110	0.8815	104	67.2	133.6				
Zinc	752	1.3	707	2.41	106	73.8	126.3				

Associated samples: **H15050235-020A, H15050235-023A, H15050235-026A, H15050235-029A, H15050235-032A, H15050235-035A, H15050235-038A, H15050235-041A, H15050235-044A, H15050235-047A, H15050235-050A, H15050235-053A, H15050235-056A, H15050235-059A**

Run ID :Run Order: **ICPMS204-B_150602B: 69** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29121** Method: **SW6020**

Analysis Date: **06/03/15 00:01** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	50.1	1.0	47.74	0	105	80	120				
Arsenic	48.1	1.0	47.74	0.1155	100	80	120				
Barium	50.1	1.0	47.74	0	105	80	120				
Beryllium	24.5	1.0	23.87	0	103	80	120				
Cadmium	25.3	1.0	23.87	0	106	80	120				
Chromium	48.4	1.0	47.74	0.09297	101	80	120				
Cobalt	48.7	1.0	47.74	0	102	80	120				
Copper	50.9	1.0	47.74	1.56	103	80	120				
Iron	264	5.0	238.7	17.47	103	80	120				
Lead	49.3	1.0	47.74	0.1208	103	80	120				
Manganese	239	1.0	238.7	0.9431	100	80	120				
Molybdenum	49.3	1.0	47.74	0	103	80	120				
Nickel	49.5	1.0	47.74	0	104	80	120				
Selenium	46.9	1.0	47.74	0	98	80	120				
Silver	25.0	1.0	23.87	0.05741	104	80	120				
Uranium	48.7	1.0	47.74	0	102	80	120				
Vanadium	47.3	1.0	47.74	0.8815	97	80	120				
Zinc	50.7	1.0	47.74	2.41	101	80	120				

Associated samples: **H15050235-020A, H15050235-023A, H15050235-026A, H15050235-029A, H15050235-032A, H15050235-035A, H15050235-038A, H15050235-041A, H15050235-044A, H15050235-047A, H15050235-050A, H15050235-053A, H15050235-056A, H15050235-059A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29121

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 92** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15050235-059APDS** Method: **SW6020**

Analysis Date: **06/03/15 01:14** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	650	1.0	680.7	0.5409	95	75	125				
Arsenic	688	1.0	680.7	31.25	97	75	125				
Barium	782	1.0	680.7	130.9	96	75	125				
Beryllium	339	1.0	340.4	0.3111	100	75	125				
Cadmium	328	1.0	340.4	0.7658	96	75	125				
Chromium	668	1.0	680.7	18.92	95	75	125				
Cobalt	639	1.0	680.7	5.74	93	75	125				
Copper	758	1.0	680.7	162.7	87	75	125				
Iron	29500	6.5	3404	30000		75	125				A
Lead	701	1.0	680.7	79.43	91	75	125				
Manganese	3630	1.0	3404	632.7	88	75	125				
Molybdenum	663	1.0	680.7	0.6205	97	75	125				
Nickel	658	1.0	680.7	7.637	95	75	125				
Selenium	618	1.0	680.7	0	91	75	125				
Silver	207	1.0	340.4	0.8794	60	75	125				S
Uranium	644	1.0	680.7	8.549	93	75	125				
Vanadium	715	1.0	680.7	79.57	93	75	125				
Zinc	961	1.0	680.7	361.3	88	75	125				

Associated samples: **H15050235-020A, H15050235-023A, H15050235-026A, H15050235-029A, H15050235-032A, H15050235-035A, H15050235-038A, H15050235-041A, H15050235-044A, H15050235-047A, H15050235-050A, H15050235-053A, H15050235-056A, H15050235-059A**

Run ID :Run Order: **ICPMS204-B_150602B: 93** SampType: **Sample Matrix Spike** Lab ID: **H15050235-059AMS** Method: **SW6020**

Analysis Date: **06/03/15 01:17** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	43.4	1.0	66.86	0.5409	64	75	125				S
Arsenic	96.7	1.0	66.86	31.25	98	75	125				
Barium	199	1.0	66.86	130.9	101	75	125				
Beryllium	36.0	1.0	33.43	0.3111	107	75	125				
Cadmium	35.9	1.0	33.43	0.7658	105	75	125				
Chromium	85.8	1.0	66.86	18.92	100	75	125				
Cobalt	74.8	1.0	66.86	5.74	103	75	125				
Copper	208	1.0	66.86	162.7	68	75	125				S
Iron	27000	6.4	334.3	30000		75	125				A
Lead	133	1.0	66.86	79.43	80	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29121

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 93** SampType: **Sample Matrix Spike** Lab ID: **H15050235-059AMS** Method: **SW6020**

Analysis Date: **06/03/15 01:17** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	838	1.0	334.3	632.7	62	75	125				S
Molybdenum	71.0	1.0	66.86	0.6205	105	75	125				
Nickel	77.2	1.0	66.86	7.637	104	75	125				
Selenium	69.0	1.0	66.86	0	103	75	125				
Silver	36.5	1.0	33.43	0.8794	106	75	125				
Uranium	70.7	1.0	66.86	8.549	93	75	125				
Vanadium	133	1.0	66.86	79.57	80	75	125				
Zinc	449	1.0	66.86	361.3		75	125				A

Associated samples: **H15050235-020A, H15050235-023A, H15050235-026A, H15050235-029A, H15050235-032A, H15050235-035A, H15050235-038A, H15050235-041A, H15050235-044A, H15050235-047A, H15050235-050A, H15050235-053A, H15050235-056A, H15050235-059A**

Run ID :Run Order: **ICPMS204-B_150602B: 94** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-059AMSD** Method: **SW6020**

Analysis Date: **06/03/15 01:20** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	43.1	1.0	68.32	0.5409	62	75	125	43.35	0.5	20	S
Arsenic	91.5	1.0	68.32	31.25	88	75	125	96.68	5.5	20	
Barium	205	1.0	68.32	130.9	109	75	125	198.7	3.3	20	
Beryllium	36.2	1.0	34.16	0.3111	105	75	125	35.98	0.7	20	
Cadmium	36.4	1.0	34.16	0.7658	104	75	125	35.94	1.4	20	
Chromium	89.2	1.0	68.32	18.92	103	75	125	85.85	3.8	20	
Cobalt	76.1	1.0	68.32	5.74	103	75	125	74.81	1.7	20	
Copper	202	1.0	68.32	162.7	58	75	125	208.3	3.0	20	S
Iron	27200	6.5	341.6	30000		75	125	27020	0.6	20	A
Lead	161	1.0	68.32	79.43	119	75	125	133	19	20	
Manganese	941	1.0	341.6	632.7	90	75	125	838.4	12	20	
Molybdenum	69.9	1.0	68.32	0.6205	101	75	125	71	1.6	20	
Nickel	78.6	1.0	68.32	7.637	104	75	125	77.15	1.9	20	
Selenium	65.4	1.0	68.32	0	96	75	125	69	5.3	20	
Silver	36.5	1.0	34.16	0.8794	104	75	125	36.48	0.1	20	
Uranium	72.7	1.0	68.32	8.549	94	75	125	70.67	2.8	20	
Vanadium	143	1.0	68.32	79.57	93	75	125	133.4	6.8	20	
Zinc	446	1.0	68.32	361.3		75	125	449.2	0.7	20	A

Associated samples: **H15050235-020A, H15050235-023A, H15050235-026A, H15050235-029A, H15050235-032A, H15050235-035A, H15050235-038A, H15050235-041A, H15050235-044A, H15050235-047A, H15050235-050A, H15050235-053A, H15050235-056A, H15050235-059A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29122

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150603B: 178** SampType: **Method Blank** Lab ID: **MB-29122** Method: **SW6010B**

Analysis Date: **06/04/15 12:10** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2	0.3									
Boron	0.2	0.1									
Iron	10	0.6									

Associated samples: **H15050235-021A, H15050235-024A, H15050235-027A, H15050235-030A, H15050235-033A, H15050235-036A, H15050235-039A, H15050235-042A, H15050235-045A, H15050235-048A, H15050235-051A, H15050235-054A, H15050235-057A, H15050235-060A**

Run ID :Run Order: **ICP2-HE_150603B: 179** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29122** Method: **SW6010B**

Analysis Date: **06/04/15 12:14** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	261	5.0	260.2	1.878	99	80	120				
Boron	50.0	1.0	52.04	0.2194	96	80	120				
Iron	262	5.0	260.2	9.518	97	80	120				

Associated samples: **H15050235-021A, H15050235-024A, H15050235-027A, H15050235-030A, H15050235-033A, H15050235-036A, H15050235-039A, H15050235-042A, H15050235-045A, H15050235-048A, H15050235-051A, H15050235-054A, H15050235-057A, H15050235-060A**

Run ID :Run Order: **ICP2-HE_150603B: 180** SampType: **Laboratory Control Sample** Lab ID: **LCS-29122** Method: **SW6010B**

Analysis Date: **06/04/15 12:18** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	12400	6.9	18600	1.878	67	0	201.6				
Boron	204	1.1	197	0.2194	103	59.9	140.1				
Iron	8210	6.1	8260	9.518	99	12.5	187.7				

Associated samples: **H15050235-021A, H15050235-024A, H15050235-027A, H15050235-030A, H15050235-033A, H15050235-036A, H15050235-039A, H15050235-042A, H15050235-045A, H15050235-048A, H15050235-051A, H15050235-054A, H15050235-057A, H15050235-060A**

Run ID :Run Order: **ICP2-HE_150605B: 123** SampType: **Method Blank** Lab ID: **MB-29122** Method: **SW6010B**

Analysis Date: **06/06/15 00:43** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	3	0.3									
Boron	ND	0.1									
Iron	10	0.6									

Associated samples: **H15050235-021A, H15050235-024A, H15050235-027A, H15050235-030A, H15050235-033A, H15050235-036A, H15050235-039A, H15050235-042A, H15050235-045A, H15050235-048A, H15050235-051A, H15050235-054A, H15050235-057A, H15050235-060A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29122

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150605B: 132** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15050235-060APDS** Method: **SW6010B**

Analysis Date: **06/06/15 01:17** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5690	5.0	1637	4034	101	75	125				
Boron	312	1.0	327.5	1.163	95	75	125				
Iron	12600	5.0	1637	10960		75	125				A

Associated samples: **H15050235-021A, H15050235-024A, H15050235-027A, H15050235-030A, H15050235-033A, H15050235-036A, H15050235-039A, H15050235-042A, H15050235-045A, H15050235-048A, H15050235-051A, H15050235-054A, H15050235-057A, H15050235-060A**

Run ID :Run Order: **ICP2-HE_150605B: 133** SampType: **Sample Matrix Spike** Lab ID: **H15050235-060AMS** Method: **SW6010B**

Analysis Date: **06/06/15 01:21** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5460	5.0	309	4034		75	125				A
Boron	60.1	1.0	61.8	1.163	95	75	125				
Iron	8110	5.0	309	10960		75	125				A

Associated samples: **H15050235-021A, H15050235-024A, H15050235-027A, H15050235-030A, H15050235-033A, H15050235-036A, H15050235-039A, H15050235-042A, H15050235-045A, H15050235-048A, H15050235-051A, H15050235-054A, H15050235-057A, H15050235-060A**

Run ID :Run Order: **ICP2-HE_150605B: 134** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-060AMSD** Method: **SW6010B**

Analysis Date: **06/06/15 01:25** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5060	5.0	303.6	4034		75	125	5462	7.7	20	A
Boron	57.2	1.0	60.73	1.163	92	75	125	60.07	4.9	20	
Iron	9830	5.0	303.6	10960		75	125	8113	19	20	A

Associated samples: **H15050235-021A, H15050235-024A, H15050235-027A, H15050235-030A, H15050235-033A, H15050235-036A, H15050235-039A, H15050235-042A, H15050235-045A, H15050235-048A, H15050235-051A, H15050235-054A, H15050235-057A, H15050235-060A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29122

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 98** SampType: **Method Blank** Lab ID: **MB-29122** Method: **SW6020**

Analysis Date: **06/03/15 01:33** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.1	0.08									
Arsenic	0.06	0.05									
Barium	ND	0.4									
Beryllium	ND	0.2									
Cadmium	ND	0.2									
Chromium	0.09	0.04									
Cobalt	ND	0.04									
Copper	1	0.1									
Iron	10	5									
Lead	0.2	0.10									
Manganese	ND	0.3									
Molybdenum	ND	0.10									
Nickel	0.1	0.1									
Selenium	ND	0.1									
Silver	ND	0.06									
Uranium	ND	0.06									
Vanadium	0.8	0.4									
Zinc	3	0.7									

Associated samples: **H15050235-021A, H15050235-024A, H15050235-027A, H15050235-030A, H15050235-033A, H15050235-036A, H15050235-039A, H15050235-042A, H15050235-045A, H15050235-048A, H15050235-051A, H15050235-054A, H15050235-057A, H15050235-060A**

Run ID :Run Order: **ICPMS204-B_150602B: 99** SampType: **Laboratory Control Sample** Lab ID: **LCS-29122** Method: **SW6020**

Analysis Date: **06/03/15 01:36** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	82.7	1.0	127	0.1127	**65**	0	251.2				
Arsenic	98.1	1.0	96.2	0.06282	**102**	69.2	131				
Barium	863	1.0	904	0	**95**	74.8	125				
Beryllium	247	1.0	231	0	**107**	75.8	125.2				
Cadmium	383	1.0	384	0	**100**	73.4	126.6				
Chromium	217	1.0	213	0.08899	**102**	70.9	129.6				
Cobalt	142	1.0	138	0	**103**	73.9	125.4				
Copper	110	1.0	107	1.023	**102**	74.5	125.2				
Iron	8240	10.0	8260	11.46	**100**	12.5	187.7				
Lead	190	1.0	188	0.2395	**101**	74.5	125.5				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29122

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 99** SampType: **Laboratory Control Sample** Lab ID: **LCS-29122** Method: **SW6020**

Analysis Date: **06/03/15 01:36** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	842	1.0	760	0	111	78.3	121.7				
Molybdenum	77.9	1.0	77	0	101	68.8	131.2				
Nickel	253	1.0	241	0.1232	105	74.3	125.7				
Selenium	296	1.0	295	0	100	69.5	130.2				
Silver	27.8	1.0	25.6	0	109	64.5	135.5				
Uranium	1.54	1.0		0		0	0				
Vanadium	111	1.0	110	0.8413	100	67.2	133.6				
Zinc	727	1.5	707	3.013	102	73.8	126.3				

Associated samples: **H15050235-021A, H15050235-024A, H15050235-027A, H15050235-030A, H15050235-033A, H15050235-036A, H15050235-039A, H15050235-042A, H15050235-045A, H15050235-048A, H15050235-051A, H15050235-054A, H15050235-057A, H15050235-060A**

Run ID :Run Order: **ICPMS204-B_150602B: 100** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29122** Method: **SW6020**

Analysis Date: **06/03/15 01:39** Units: **mg/kg** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	55.5	1.0	52.04	0.1127	106	80	120				
Arsenic	52.8	1.0	52.04	0.06282	101	80	120				
Barium	54.1	1.0	52.04	0	104	80	120				
Beryllium	28.6	1.0	26.02	0	110	80	120				
Cadmium	27.4	1.0	26.02	0	105	80	120				
Chromium	53.4	1.0	52.04	0.08899	103	80	120				
Cobalt	54.5	1.0	52.04	0	105	80	120				
Copper	56.3	1.0	52.04	1.023	106	80	120				
Iron	273	5.0	260.2	11.46	100	80	120				
Lead	54.3	1.0	52.04	0.2395	104	80	120				
Manganese	263	1.0	260.2	0	101	80	120				
Molybdenum	53.7	1.0	52.04	0	103	80	120				
Nickel	55.0	1.0	52.04	0.1232	105	80	120				
Selenium	47.6	1.0	52.04	0	91	80	120				
Silver	27.3	1.0	26.02	0	105	80	120				
Uranium	54.1	1.0	52.04	0	104	80	120				
Vanadium	52.4	1.0	52.04	0.8413	99	80	120				
Zinc	56.2	1.0	52.04	3.013	102	80	120				

Associated samples: **H15050235-021A, H15050235-024A, H15050235-027A, H15050235-030A, H15050235-033A, H15050235-036A, H15050235-039A, H15050235-042A, H15050235-045A, H15050235-048A, H15050235-051A, H15050235-054A, H15050235-057A, H15050235-060A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29122

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 123** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15050235-060APDS** Method: **SW6020**

Analysis Date: **06/03/15 02:52** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	601	1.0	635.8	0.2669	95	75	125				
Arsenic	626	1.0	635.8	25.35	94	75	125				
Barium	674	1.0	635.8	73.18	94	75	125				
Beryllium	298	1.0	317.9	0	94	75	125				
Cadmium	299	1.0	317.9	0.3697	94	75	125				
Chromium	595	1.0	635.8	9.023	92	75	125				
Cobalt	584	1.0	635.8	3.724	91	75	125				
Copper	694	1.0	635.8	107.5	92	75	125				
Iron	12800	6.1	3179	10660	68	75	125				S
Lead	616	1.0	635.8	42.47	90	75	125				
Manganese	3210	1.0	3179	482.7	86	75	125				
Molybdenum	611	1.0	635.8	1.829	96	75	125				
Nickel	599	1.0	635.8	5.187	93	75	125				
Selenium	547	1.0	635.8	0	86	75	125				
Silver	144	1.0	317.9	0.1838	45	75	125				S
Uranium	578	1.0	635.8	1.396	91	75	125				
Vanadium	604	1.0	635.8	22.93	91	75	125				
Zinc	769	1.0	635.8	209.7	88	75	125				

Associated samples: **H15050235-021A, H15050235-024A, H15050235-027A, H15050235-030A, H15050235-033A, H15050235-036A, H15050235-039A, H15050235-042A, H15050235-045A, H15050235-048A, H15050235-051A, H15050235-054A, H15050235-057A, H15050235-060A**

Run ID :Run Order: **ICPMS204-B_150602B: 124** SampType: **Sample Matrix Spike** Lab ID: **H15050235-060AMS** Method: **SW6020**

Analysis Date: **06/03/15 02:55** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	51.1	1.0	61.8	0.2669	82	75	125				
Arsenic	77.9	1.0	61.8	25.35	85	75	125				
Barium	126	1.0	61.8	73.18	85	75	125				
Beryllium	33.2	1.0	30.9	0	107	75	125				
Cadmium	33.3	1.0	30.9	0.3697	106	75	125				
Chromium	71.6	1.0	61.8	9.023	101	75	125				
Cobalt	66.9	1.0	61.8	3.724	102	75	125				
Copper	223	1.0	61.8	107.5	187	75	125				S
Iron	7970	5.9	309	10660		75	125				A
Lead	91.4	1.0	61.8	42.47	79	75	125				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29122

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 124** SampType: **Sample Matrix Spike** Lab ID: **H15050235-060AMS** Method: **SW6020**

Analysis Date: **06/03/15 02:55** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	625	1.0	309	482.7	46	75	125				S
Molybdenum	65.0	1.0	61.8	1.829	102	75	125				
Nickel	70.0	1.0	61.8	5.187	105	75	125				
Selenium	61.5	1.0	61.8	0	99	75	125				
Silver	36.2	1.0	30.9	0.1838	117	75	125				
Uranium	66.4	1.0	61.8	1.396	105	75	125				
Vanadium	79.0	1.0	61.8	22.93	91	75	125				
Zinc	219	1.0	61.8	209.7	15	75	125				S

Associated samples: **H15050235-021A, H15050235-024A, H15050235-027A, H15050235-030A, H15050235-033A, H15050235-036A, H15050235-039A, H15050235-042A, H15050235-045A, H15050235-048A, H15050235-051A, H15050235-054A, H15050235-057A, H15050235-060A**

Run ID :Run Order: **ICPMS204-B_150602B: 125** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-060AMSD** Method: **SW6020**

Analysis Date: **06/03/15 02:59** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/1/2015** Prep Method: **SW3050 B**

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	51.4	1.0	60.73	0.2669	84	75	125	51.13	0.6	20	
Arsenic	81.1	1.0	60.73	25.35	92	75	125	77.93	4.0	20	
Barium	129	1.0	60.73	73.18	93	75	125	125.8	2.8	20	
Beryllium	33.5	1.0	30.36	0	110	75	125	33.17	1.1	20	
Cadmium	32.5	1.0	30.36	0.3697	106	75	125	33.25	2.3	20	
Chromium	73.8	1.0	60.73	9.023	107	75	125	71.63	3.0	20	
Cobalt	66.1	1.0	60.73	3.724	103	75	125	66.93	1.2	20	
Copper	152	1.0	60.73	107.5	74	75	125	223.2	38	20	SR
Iron	9330	5.8	303.6	10660		75	125	7966	16	20	A
Lead	95.2	1.0	60.73	42.47	87	75	125	91.4	4.0	20	
Manganese	669	1.0	303.6	482.7	61	75	125	625.4	6.8	20	S
Molybdenum	64.7	1.0	60.73	1.829	104	75	125	65.01	0.4	20	
Nickel	72.4	1.0	60.73	5.187	111	75	125	70.02	3.3	20	
Selenium	58.2	1.0	60.73	0	96	75	125	61.45	5.4	20	
Silver	32.6	1.0	30.36	0.1838	107	75	125	36.2	10	20	
Uranium	64.2	1.0	60.73	1.396	103	75	125	66.44	3.4	20	
Vanadium	82.8	1.0	60.73	22.93	99	75	125	78.98	4.7	20	
Zinc	209	1.0	60.73	209.7	-1	75	125	219	4.7	20	S

Associated samples: **H15050235-021A, H15050235-024A, H15050235-027A, H15050235-030A, H15050235-033A, H15050235-036A, H15050235-039A, H15050235-042A, H15050235-045A, H15050235-048A, H15050235-051A, H15050235-054A, H15050235-057A, H15050235-060A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29139

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150608A: 103** SampType: **Method Blank** Lab ID: **MB-29139** Method: **SW6010B**
Analysis Date: **06/08/15 20:24** Units: **mg/kg** **Prep Info:** Prep Date: **6/2/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.7	0.3									
Barium	0.07	0.02									
Boron	0.3	0.1									
Copper	0.6	0.2									
Iron	8	0.6									
Manganese	0.05	0.02									
Zinc	1.0	0.10									

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **ICP2-HE_150608A: 104** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29139** Method: **SW6010B**
Analysis Date: **06/08/15 20:28** Units: **mg/kg** **Prep Info:** Prep Date: **6/2/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	253	5.0	245.1	0.7143	103	80	120				
Barium	50.6	1.0	49.02	0.07041	103	80	120				
Boron	48.7	1.0	49.02	0.2913	99	80	120				
Copper	50.9	1.0	49.02	0.6199	103	80	120				
Iron	252	5.0	245.1	8.393	99	80	120				
Manganese	245	1.0	245.1	0.04541	100	80	120				
Zinc	49.9	1.0	49.02	0.9689	100	80	120				

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **ICP2-HE_150608A: 105** SampType: **Laboratory Control Sample** Lab ID: **LCS2-29139** Method: **SW6010B**
Analysis Date: **06/08/15 20:32** Units: **mg/kg** **Prep Info:** Prep Date: **6/2/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	14300	6.9	18600	0.7143	77	0	201.6				
Barium	905	1.0	904	0.07041	100	74.8	125				
Boron	213	1.1	197	0.2913	108	59.9	140.1				
Copper	114	2.3	107	0.6199	106	74.5	125.2				
Iron	8640	6.1	8260	8.393	105	12.5	187.7				
Manganese	834	1.0	760	0.04541	110	78.3	121.7				
Zinc	728	1.0	707	0.9689	103	73.8	126.3				

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29139

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150608A: 117** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15050438-002APDS** Method: **SW6010B**

Analysis Date: **06/08/15 21:17** Units: **mg/kg** **Prep Info:** Prep Date: **6/2/2015** Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	17800	5.0	1288	16190		75	125				A
Barium	392	1.0	257.5	151.2	93	75	125				
Boron	252	1.0	257.5	10.38	94	75	125				
Copper	259	1.1	257.5	18.63	93	75	125				
Iron	16000	5.0	1288	14690		75	125				A
Manganese	1510	1.0	1288	326.2	92	75	125				
Zinc	294	1.0	257.5	51.35	94	75	125				

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **ICP2-HE_150608A: 118** SampType: **Sample Matrix Spike** Lab ID: **H15050438-002AMS** Method: **SW6010B**

Analysis Date: **06/08/15 21:20** Units: **mg/kg** **Prep Info:** Prep Date: **6/2/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	19800	5.0	260.4	16190		75	125				A
Barium	211	1.0	52.08	151.2	115	75	125				
Boron	59.8	1.0	52.08	10.38	95	75	125				
Copper	73.7	1.1	52.08	18.63	106	75	125				
Iron	16000	5.0	260.4	14690		75	125				A
Manganese	603	1.0	260.4	326.2	106	75	125				
Zinc	105	1.0	52.08	51.35	104	75	125				

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **ICP2-HE_150608A: 119** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050438-002AMSD** Method: **SW6010B**

Analysis Date: **06/08/15 21:24** Units: **mg/kg** **Prep Info:** Prep Date: **6/3/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	19000	5.0	260.4	16190		75	125	19820	4.3	20	A
Barium	202	1.0	52.08	151.2	98	75	125	211.2	4.2	20	
Boron	60.8	1.0	52.08	10.38	97	75	125	59.84	1.6	20	
Copper	71.8	1.1	52.08	18.63	102	75	125	73.69	2.6	20	
Iron	15300	5.0	260.4	14690		75	125	15980	4.4	20	A
Manganese	587	1.0	260.4	326.2	100	75	125	602.6	2.7	20	
Zinc	104	1.0	52.08	51.35	102	75	125	105.5	0.9	20	

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29139

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150610B: 19** SampType: **Method Blank** Lab ID: **MB-29139** Method: **SW6020**

Analysis Date: **06/10/15 19:43** Units: **mg/kg** **Prep Info:** Prep Date: **6/2/2015** Prep Method: **SW3050 B**

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.09	0.05									
Beryllium	ND	0.2									
Cadmium	ND	0.2									
Chromium	0.09	0.04									
Cobalt	ND	0.04									
Lead	ND	0.10									
Molybdenum	ND	0.10									
Nickel	ND	0.1									
Selenium	ND	0.1									
Silver	ND	0.05									
Uranium	ND	0.06									
Vanadium	0.7	0.4									

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **ICPMS204-B_150610B: 20** SampType: **Laboratory Control Sample** Lab ID: **LCS2-29139** Method: **SW6020**

Analysis Date: **06/10/15 19:46** Units: **mg/kg** **Prep Info:** Prep Date: **6/2/2015** Prep Method: **SW3050 B**

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	76.6	1.0	127	0	**60**	0	251.2				
Arsenic	106	1.0	96.2	0.08638	**110**	69.2	131				
Beryllium	240	1.0	231	0	**104**	75.8	125.2				
Cadmium	412	1.0	384	0	**107**	73.4	126.6				
Chromium	233	1.0	213	0.08643	**110**	70.9	129.6				
Cobalt	155	1.0	138	0	**112**	73.9	125.4				
Lead	198	1.0	188	0	**105**	74.5	125.5				
Molybdenum	81.9	1.0	77	0	**106**	68.8	131.2				
Nickel	270	1.0	241	0	**112**	74.3	125.7				
Selenium	332	1.0	295	0	**113**	69.5	130.2				
Silver	29.5	1.0	25.6	0	**115**	64.5	135.5				
Uranium	1.74	1.0	100	0	**2**	0	0				S
Vanadium	121	1.0	110	0.699	**109**	67.2	133.6				

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29139

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150610B: 21** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29139** Method: **SW6020**

Analysis Date: **06/10/15 19:49** Units: **mg/kg** **Prep Info:** Prep Date: **6/2/2015** Prep Method: **SW3050 B**

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	53.5	1.0	49.02	0	109	80	120				
Arsenic	53.2	1.0	49.02	0.08638	108	80	120				
Beryllium	25.9	1.0	24.51	0	106	80	120				
Cadmium	27.1	1.0	24.51	0	111	80	120				
Chromium	52.2	1.0	49.02	0.08643	106	80	120				
Cobalt	53.1	1.0	49.02	0	108	80	120				
Lead	53.4	1.0	49.02	0	109	80	120				
Molybdenum	52.2	1.0	49.02	0	106	80	120				
Nickel	53.1	1.0	49.02	0	108	80	120				
Selenium	51.1	1.0	49.02	0	104	80	120				
Silver	26.5	1.0	24.51	0	108	80	120				
Uranium	51.8	1.0	49.02	0	106	80	120				
Vanadium	51.1	1.0	49.02	0.699	103	80	120				

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **ICPMS204-B_150610B: 35** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15050438-002APDS** Method: **SW6020**

Analysis Date: **06/10/15 20:34** Units: **mg/kg** **Prep Info:** Prep Date: **6/2/2015** Prep Method:

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	473	1.0	500	0.1621	94	75	125				
Arsenic	515	1.0	500	13.32	100	75	125				
Beryllium	224	1.0	250	0.889	89	75	125				
Cadmium	206	1.0	250	0.3897	82	75	125				
Chromium	500	1.0	500	14.2	97	75	125				
Cobalt	481	1.0	500	5.925	95	75	125				
Lead	487	1.0	500	18.68	94	75	125				
Molybdenum	484	1.0	500	0.7865	97	75	125				
Nickel	496	1.0	500	9.715	97	75	125				
Selenium	455	1.0	500	0.3037	91	75	125				
Silver	139	1.0	250	0.1183	56	75	125				S
Uranium	506	1.0	500	2.275	101	75	125				
Vanadium	519	1.0	500	35.38	97	75	125				

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29139

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150610B: 36** SampType: **Sample Matrix Spike** Lab ID: **H15050438-002AMS** Method: **SW6020**

Analysis Date: **06/10/15 20:36** Units: **mg/kg** **Prep Info:** Prep Date: **6/2/2015** Prep Method: **SW3050 B**

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	16.7	1.0	52.08	0.1621	32	75	125				S
Arsenic	68.0	1.0	52.08	13.32	105	75	125				
Beryllium	26.6	1.0	26.04	0.889	99	75	125				
Cadmium	23.9	1.0	26.04	0.3897	90	75	125				
Chromium	71.1	1.0	52.08	14.2	109	75	125				
Cobalt	61.1	1.0	52.08	5.925	106	75	125				
Lead	74.3	1.0	52.08	18.68	107	75	125				
Molybdenum	53.9	1.0	52.08	0.7865	102	75	125				
Nickel	64.1	1.0	52.08	9.715	104	75	125				
Selenium	53.4	1.0	52.08	0.3037	102	75	125				
Silver	27.8	1.0	26.04	0.1183	106	75	125				
Uranium	57.8	1.0	52.08	2.275	107	75	125				
Vanadium	93.0	1.0	52.08	35.38	111	75	125				

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **ICPMS204-B_150610B: 37** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050438-002AMSD** Method: **SW6020**

Analysis Date: **06/10/15 20:40** Units: **mg/kg** **Prep Info:** Prep Date: **6/3/2015** Prep Method: **SW3050 B**

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	16.0	1.0	52.08	0.1621	30	75	125	16.7	4.5	20	S
Arsenic	67.6	1.0	52.08	13.32	104	75	125	68.02	0.6	20	
Beryllium	25.9	1.0	26.04	0.889	96	75	125	26.57	2.5	20	
Cadmium	23.8	1.0	26.04	0.3897	90	75	125	23.94	0.6	20	
Chromium	69.3	1.0	52.08	14.2	106	75	125	71.15	2.6	20	
Cobalt	60.1	1.0	52.08	5.925	104	75	125	61.09	1.7	20	
Lead	73.2	1.0	52.08	18.68	105	75	125	74.32	1.5	20	
Molybdenum	52.7	1.0	52.08	0.7865	100	75	125	53.85	2.2	20	
Nickel	62.9	1.0	52.08	9.715	102	75	125	64.06	1.8	20	
Selenium	54.3	1.0	52.08	0.3037	104	75	125	53.39	1.6	20	
Silver	28.0	1.0	26.04	0.1183	107	75	125	27.84	0.4	20	
Uranium	56.7	1.0	52.08	2.275	104	75	125	57.76	1.9	20	
Vanadium	89.6	1.0	52.08	35.38	104	75	125	92.97	3.7	20	

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29139

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150611B: 23** SampType: **Method Blank** Lab ID: **MB-29139** Method: **SW6020**

Analysis Date: **06/11/15 11:05** Units: **mg/kg** **Prep Info:** Prep Date: **6/2/2015** Prep Method: **SW3050 B**

Analytes 12	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.4									
Arsenic	ND	0.2									
Beryllium	ND	0.8									
Cadmium	ND	0.9									
Chromium	ND	0.2									
Cobalt	ND	0.2									
Lead	ND	0.5									
Molybdenum	ND	0.5									
Nickel	ND	0.5									
Silver	ND	0.3									
Uranium	ND	0.3									
Vanadium	ND	2									

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **ICPMS204-B_150611B: 24** SampType: **Laboratory Control Sample** Lab ID: **LCS2-29139** Method: **SW6020**

Analysis Date: **06/11/15 11:08** Units: **mg/kg** **Prep Info:** Prep Date: **6/2/2015** Prep Method: **SW3050 B**

Analytes 12	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	76.5	1.0	127	0	**60**	0	251.2				
Arsenic	103	1.0	96.2	0	**108**	69.2	131				
Beryllium	255	1.5	231	0	**110**	75.8	125.2				
Cadmium	417	1.7	384	0	**108**	73.4	126.6				
Chromium	231	1.0	213	0	**108**	70.9	129.6				
Cobalt	152	1.0	138	0	**110**	73.9	125.4				
Lead	198	1.0	188	0	**105**	74.5	125.5				
Molybdenum	79.2	1.0	77	0	**103**	68.8	131.2				
Nickel	265	1.1	241	0	**110**	74.3	125.7				
Silver	28.4	1.0	25.6	0	**111**	64.5	135.5				
Uranium	1.52	1.0		0		0	0				
Vanadium	120	4.4	110	0	**109**	67.2	133.6				

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29156

Date: *15-Jun-15*

Run ID :Run Order: **HGCV201-H_150604A: 10** SampType: **Method Blank** Lab ID: **MB-29156** Method: **SW7471B**
Analysis Date: **06/04/15 10:39** Units: **mg/kg** **Prep Info:** Prep Date: **6/3/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.010									

Associated samples: **H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A, H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **HGCV201-H_150604A: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-29156** Method: **SW7471B**
Analysis Date: **06/04/15 10:42** Units: **mg/kg** **Prep Info:** Prep Date: **6/3/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.3	0.50	4.995	0	87	80	120				

Associated samples: **H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A, H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **HGCV201-H_150604A: 12** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-29156** Method: **SW7471B**
Analysis Date: **06/04/15 10:44** Units: **mg/kg** **Prep Info:** Prep Date: **6/3/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.1	0.50	1	0	107	80	120				

Associated samples: **H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A, H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **HGCV201-H_150604A: 14** SampType: **Sample Matrix Spike** Lab ID: **H15050235-052AMS** Method: **SW7471B**
Analysis Date: **06/04/15 10:50** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/3/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	3.9	0.50	2.676	1.034	107	80	120				

Associated samples: **H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A, H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **HGCV201-H_150604A: 15** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-052AMSD** Method: **SW7471B**
Analysis Date: **06/04/15 10:52** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/3/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	3.9	0.50	2.666	1.034	108	80	120	3.893	0.8	20	

Associated samples: **H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A, H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 29156

Date: *15-Jun-15*

Run ID :Run Order: **HGCV201-H_150604A: 29** SampType: **Sample Matrix Spike** Lab ID: **H15050235-062AMS** Method: **SW7471B**

Analysis Date: **06/04/15 11:29** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/3/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.4	0.50	1.216	0.2089	**100**	80	120				

Associated samples: **H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A, H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **HGCV201-H_150604A: 30** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-062AMSD** Method: **SW7471B**

Analysis Date: **06/04/15 11:32** Units: **mg/kg-dry** **Prep Info:** Prep Date: **6/3/2015** Prep Method: **SW7471A**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.4	0.50	1.221	0.2089	**98**	80	120	1.429	**2.1**	20	

Associated samples: **H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A, H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_44747

Date: *15-Jun-15*

Run ID :Run Order: **SUB-C199713: 1** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV-44747** Method: **A5310 C**

Analysis Date: **05/22/15 14:59** Units: **mg/L** **Prep Info:** Prep Date: **5/21/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.1	0.50	10	0	**101**	90	110	0			

Associated samples: **H15050235-001E, H15050235-002E, H15050235-003E, H15050235-004E, H15050235-005E, H15050235-006E, H15050235-007E, H15050235-008E, H15050235-009E, H15050235-010E, H15050235-011E, H15050235-012E**

Run ID :Run Order: **SUB-C199713: 22** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1-44747** Method: **A5310 C**

Analysis Date: **05/22/15 23:27** Units: **mg/L** **Prep Info:** Prep Date: **5/21/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.2	0.50	10	0	**102**	90	110	0			

Associated samples: **H15050235-001E, H15050235-002E, H15050235-003E, H15050235-004E, H15050235-005E, H15050235-006E, H15050235-007E, H15050235-008E, H15050235-009E, H15050235-010E, H15050235-011E, H15050235-012E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_44759

Date: *15-Jun-15*

Run ID :Run Order: **SUB-C199714: 1** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV-44759** Method: **A5310 C**

Analysis Date: **05/24/15 04:52** Units: **mg/L** **Prep Info:** Prep Date: **5/23/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.3	0.50	10	0	**103**	90	110	0			

Associated samples: **H15050235-013E, H15050235-014E, H15050235-015E, H15050235-016E, H15050235-017E, H15050235-018E**

Run ID :Run Order: **SUB-C199714: 2** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-44759** Method: **A5310 C**

Analysis Date: **05/24/15 05:08** Units: **mg/L** **Prep Info:** Prep Date: **5/23/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.3	0.50	10	0	**103**	90	110	0			

Associated samples: **H15050235-013E, H15050235-014E, H15050235-015E, H15050235-016E, H15050235-017E, H15050235-018E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_7923

Date: *15-Jun-15*

Run ID :Run Order: **SUB-C199713: 35** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-7923** Method: **A5310 C**

Analysis Date: **05/23/15 03:17** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.5	0.50	10	0	**105**	90	110	0			

Associated samples: **H15050235-001E, H15050235-002E, H15050235-003E, H15050235-004E, H15050235-005E, H15050235-006E, H15050235-007E, H15050235-008E, H15050235-009E, H15050235-010E, H15050235-011E, H15050235-012E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_R199713

Date: *15-Jun-15*

Run ID :Run Order: **SUB-C199713: 24** SampType: **Sample Matrix Spike** Lab ID: **C15050721-017EMS** Method: **A5310 C**

Analysis Date: **05/23/15 00:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.6	0.50	5	5.054	**111**	85	115	0			

Associated samples: **H15050235-001E, H15050235-002E, H15050235-003E, H15050235-004E, H15050235-005E, H15050235-006E, H15050235-007E, H15050235-008E, H15050235-009E, H15050235-010E, H15050235-011E, H15050235-012E**

Run ID :Run Order: **SUB-C199713: 25** SampType: **Sample Matrix Spike Duplicate** Lab ID: **C15050721-017EMSD** Method: **A5310 C**

Analysis Date: **05/23/15 00:36** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.7	0.50	5	5.054	**112**	85	115	10.58	**0.8**	10	

Associated samples: **H15050235-001E, H15050235-002E, H15050235-003E, H15050235-004E, H15050235-005E, H15050235-006E, H15050235-007E, H15050235-008E, H15050235-009E, H15050235-010E, H15050235-011E, H15050235-012E**

Run ID :Run Order: **SUB-C199713: 38** SampType: **Sample Matrix Spike** Lab ID: **H15050235-008E** Method: **A5310 C**

Analysis Date: **05/23/15 04:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	13.2	0.50	5	7.688	**110**	85	115	0			

Associated samples: **H15050235-001E, H15050235-002E, H15050235-003E, H15050235-004E, H15050235-005E, H15050235-006E, H15050235-007E, H15050235-008E, H15050235-009E, H15050235-010E, H15050235-011E, H15050235-012E**

Run ID :Run Order: **SUB-C199713: 39** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-008E** Method: **A5310 C**

Analysis Date: **05/23/15 04:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	13.1	0.50	5	7.688	**109**	85	115	13.2	**0.5**	10	

Associated samples: **H15050235-001E, H15050235-002E, H15050235-003E, H15050235-004E, H15050235-005E, H15050235-006E, H15050235-007E, H15050235-008E, H15050235-009E, H15050235-010E, H15050235-011E, H15050235-012E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106225

Date: *15-Jun-15*

Run ID :Run Order: **PHSC_101-H_150519A: 6** SampType: **Method Blank** Lab ID: **MB** Method: **A2320 B**
Analysis Date: **05/19/15 08:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	2	0.7									

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **PHSC_101-H_150519A: 8** SampType: **Laboratory Control Sample** Lab ID: **LCS** Method: **A2320 B**
Analysis Date: **05/19/15 08:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	610	4.0	600	2.16	**101**	90	110				

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **PHSC_101-H_150519A: 59** SampType: **Sample Matrix Spike** Lab ID: **H15050223-021AMS** Method: **A2320 B**
Analysis Date: **05/19/15 11:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	720	4.0	600	144.7	**97**	80	120				

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **PHSC_101-H_150519A: 100** SampType: **Sample Duplicate** Lab ID: **H15050235-013ADUP** Method: **A2320 B**
Analysis Date: **05/19/15 13:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	96	4.0		0				97.2	**0.9**	10	
Bicarbonate as HCO3	99	4.0		0				100.2	**0.7**	10	

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **PHSC_101-H_150519A: 142** SampType: **Sample Matrix Spike** Lab ID: **H15050235-013AMS** Method: **A2320 B**
Analysis Date: **05/19/15 16:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	680	4.0	600	95.45	**98**	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106225

Date: *15-Jun-15*

Run ID :Run Order: **PHSC_101-H_150519A: 142** SampType: **Sample Matrix Spike** Lab ID: **H15050235-013AMS** Method: **A2320 B**

Analysis Date: **05/19/15 16:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **PHSC_101-H_150519A: 145** SampType: **Sample Duplicate** Lab ID: **H15050235-014ADUP** Method: **A2320 B**

Analysis Date: **05/19/15 16:40** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	87	4.0		0				85.05	2.3	10	
Bicarbonate as HCO3	97	4.0		0				95.1	2.0	10	

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106232

Date: *15-Jun-15*

Run ID :Run Order: **FIA203-HE_150519A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E353.2**

Analysis Date: **05/19/15 09:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.02	0.010	1	0	102	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519A: 10** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E353.2**

Analysis Date: **05/19/15 09:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.943	0.011	1	0	94	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519A: 11** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**

Analysis Date: **05/19/15 09:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.527	0.010	0.5	0	105	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519A: 12** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E353.2**

Analysis Date: **05/19/15 09:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	-0.0184	0.010		0		0	0				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519A: 14** SampType: **Method Blank** Lab ID: **MBLK** Method: **E353.2**

Analysis Date: **05/19/15 09:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	ND	0.003									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106232

Date: *15-Jun-15*

Run ID :Run Order: **FIA203-HE_150519A: 14** SampType: **Method Blank** Lab ID: **MBLK** Method: **E353.2**

Analysis Date: **05/19/15 09:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519A: 22** SampType: **Sample Matrix Spike** Lab ID: **H15050235-002DMS** Method: **E353.2**

Analysis Date: **05/19/15 10:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.930	0.011	1	0	**93**	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519A: 23** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-002DMSD** Method: **E353.2**

Analysis Date: **05/19/15 10:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.942	0.011	1	0	**94**	90	110	0.9297	**1.3**	20	

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519A: 28** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**

Analysis Date: **05/19/15 10:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.523	0.010	0.5	0	**105**	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519A: 35** SampType: **Sample Matrix Spike** Lab ID: **H15050235-011DMS** Method: **E353.2**

Analysis Date: **05/19/15 10:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.930	0.011	1	0	**93**	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106232

Date: *15-Jun-15*

Run ID :Run Order: **FIA203-HE_150519A: 36** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-011DMSD** Method: **E353.2**

Analysis Date: **05/19/15 10:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.939	0.011	1	0	**94**	90	110	0.9299	**0.9**	20	

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519A: 42** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**

Analysis Date: **05/19/15 10:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.528	0.010	0.5	0	**106**	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519A: 44** SampType: **Sample Matrix Spike** Lab ID: **H15050235-016DMS** Method: **E353.2**

Analysis Date: **05/19/15 10:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.49	0.011	1	0.5953	**89**	90	110				S

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519A: 45** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-016DMSD** Method: **E353.2**

Analysis Date: **05/19/15 10:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.48	0.011	1	0.5953	**89**	90	110	1.488	**0.2**	20	S

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106247

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150519A: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **05/19/15 09:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.779	0.10	0.8	0	97	95	105				
Calcium	40.1	1.0	40	0	100	95	105				
Magnesium	39.9	1.0	40	0	100	95	105				
Sodium	40.6	1.0	40	0	101	95	105				

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICP2-HE_150519A: 7** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-1** Method: **E200.7**

Analysis Date: **05/19/15 09:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.48	0.10	2.5	0	99	95	105				
Calcium	25.3	1.0	25	0	101	95	105				
Magnesium	24.9	1.0	25	0	99	95	105				
Sodium	25.1	1.0	25	0	100	95	105				

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICP2-HE_150519A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **05/19/15 09:40** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	-0.00218	0.10		0		0	0				
Calcium	471	1.0	500	0	94	80	120				
Magnesium	520	1.0	500	0	104	80	120				
Sodium	0.0392	1.0		0		0	0				

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICP2-HE_150519A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **05/19/15 09:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.966	0.10	1	0	97	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106247

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150519A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **05/19/15 09:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	461	1.0	500	0	92	80	120				
Magnesium	505	1.0	500	0	101	80	120				
Sodium	20.0	1.0	20	0	100	80	120				

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICP2-HE_150519A: 13** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.7**

Analysis Date: **05/19/15 09:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.003									
Calcium	0.04	0.03									
Magnesium	0.006	0.005									
Sodium	ND	0.02									

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICP2-HE_150519A: 14** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.7**

Analysis Date: **05/19/15 09:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.974	0.10	1	0	97	85	115				
Calcium	49.5	1.0	50	0.04355	99	85	115				
Magnesium	49.5	1.0	50	0.00572	99	85	115				
Sodium	50.6	1.0	50	0	101	85	115				

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICP2-HE_150519A: 17** SampType: **Sample Matrix Spike** Lab ID: **H15050234-001BMS2** Method: **E200.7**

Analysis Date: **05/19/15 10:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.02	0.050	1	0.01381	100	70	130				
Calcium	74.2	1.0	50	24.88	99	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106247

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150519A: 17** SampType: **Sample Matrix Spike** Lab ID: **H15050234-001BMS2** Method: **E200.7**

Analysis Date: **05/19/15 10:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	55.7	1.0	50	6.072	99	70	130				
Sodium	59.2	1.0	50	9.366	100	70	130				

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICP2-HE_150519A: 18** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050234-001BMSD2** Method: **E200.7**

Analysis Date: **05/19/15 10:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.969	0.050	1	0.01381	96	70	130	1.018	4.9	20	
Calcium	74.2	1.0	50	24.88	99	70	130	74.15	0.1	20	
Magnesium	55.6	1.0	50	6.072	99	70	130	55.66	0.1	20	
Sodium	60.4	1.0	50	9.366	102	70	130	59.19	2.0	20	

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICP2-HE_150519A: 19** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **05/19/15 10:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.44	0.10	2.5	0	98	90	110				
Calcium	25.1	1.0	25	0	100	90	110				
Magnesium	24.7	1.0	25	0	99	90	110				
Sodium	24.9	1.0	25	0	100	90	110				

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICP2-HE_150519A: 31** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **05/19/15 11:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.52	0.10	2.5	0	101	90	110				
Calcium	25.5	1.0	25	0	102	90	110				
Magnesium	25.2	1.0	25	0	101	90	110				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106247

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150519A: 31** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **05/19/15 11:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	26.0	1.0	25	0	104	90	110				

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICP2-HE_150519A: 34** SampType: **Sample Matrix Spike** Lab ID: **H15050235-008BMS2** Method: **E200.7**

Analysis Date: **05/19/15 11:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.02	0.050	1	0.04581	97	70	130				
Calcium	99.6	1.0	50	49.75	100	70	130				
Magnesium	61.4	1.0	50	10.97	101	70	130				
Sodium	79.8	1.0	50	29.98	100	70	130				

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICP2-HE_150519A: 35** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-008BMSD2** Method: **E200.7**

Analysis Date: **05/19/15 11:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.08	0.050	1	0.04581	103	70	130	1.017	5.9	20	
Calcium	101	1.0	50	49.75	103	70	130	99.62	1.8	20	
Magnesium	63.2	1.0	50	10.97	104	70	130	61.41	2.9	20	
Sodium	81.7	1.0	50	29.98	104	70	130	79.82	2.4	20	

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICP2-HE_150519A: 43** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **05/19/15 11:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.54	0.10	2.5	0	102	90	110				
Calcium	25.5	1.0	25	0	102	90	110				
Magnesium	25.3	1.0	25	0	101	90	110				
Sodium	25.6	1.0	25	0	103	90	110				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106247

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150519A: 43** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **05/19/15 11:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICP2-HE_150519A: 49** SampType: **Sample Matrix Spike** Lab ID: **H15050235-018BMS2** Method: **E200.7**

Analysis Date: **05/19/15 12:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.06	0.050	1	0.03212	103	70	130				
Calcium	93.6	1.0	50	41.93	103	70	130				
Magnesium	60.2	1.0	50	8.333	104	70	130				
Sodium	70.1	1.0	50	17.8	105	70	130				

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICP2-HE_150519A: 50** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-018BMSD2** Method: **E200.7**

Analysis Date: **05/19/15 12:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.990	0.050	1	0.03212	96	70	130	1.064	7.2	20	
Calcium	92.1	1.0	50	41.93	100	70	130	93.57	1.6	20	
Magnesium	58.7	1.0	50	8.333	101	70	130	60.18	2.4	20	
Sodium	69.1	1.0	50	17.8	103	70	130	70.05	1.4	20	

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106256

Date: *15-Jun-15*

Run ID :Run Order: **FIA202-HE_150519B: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E365.1**
Analysis Date: **05/19/15 13:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.226	0.010	0.25	0	90	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-018D**

Run ID :Run Order: **FIA202-HE_150519B: 10** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**
Analysis Date: **05/19/15 13:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.0908	0.010	0.1	0	91	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-018D**

Run ID :Run Order: **FIA202-HE_150519B: 11** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E365.1**
Analysis Date: **05/19/15 13:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	-0.000830	0.010		0		0	0				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-018D**

Run ID :Run Order: **FIA202-HE_150519B: 27** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**
Analysis Date: **05/19/15 13:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.0917	0.010	0.1	0	92	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-018D**

Run ID :Run Order: **FIA202-HE_150519B: 41** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**
Analysis Date: **05/19/15 13:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.0915	0.010	0.1	0	92	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106261

Date: *15-Jun-15*

Run ID :Run Order: **FIA203-HE_150519C: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E350.1**

Analysis Date: **05/19/15 15:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	15.5	0.50	15.2	0	102	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 8** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E350.1**

Analysis Date: **05/19/15 15:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.958	0.055	1	0	96	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**

Analysis Date: **05/19/15 15:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.466	0.050	0.5	0	93	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E350.1**

Analysis Date: **05/19/15 15:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	-0.00469	0.050		0		0	0				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 16** SampType: **Sample Matrix Spike** Lab ID: **H15050235-002DMS** Method: **E350.1**

Analysis Date: **05/19/15 15:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.909	0.055	1	0	91	80	120				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106261

Date: *15-Jun-15*

Run ID :Run Order: **FIA203-HE_150519C: 16** SampType: **Sample Matrix Spike** Lab ID: **H15050235-002DMS** Method: **E350.1**

Analysis Date: **05/19/15 15:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 17** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-002DMSD** Method: **E350.1**

Analysis Date: **05/19/15 15:17** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.918	0.055	1	0	92	80	120	0.9089	1.0	10	

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 23** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**

Analysis Date: **05/19/15 15:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.455	0.050	0.5	0	91	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 29** SampType: **Sample Matrix Spike** Lab ID: **H15050235-011DMS** Method: **E350.1**

Analysis Date: **05/19/15 15:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.882	0.055	1	0	88	80	120				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 30** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-011DMSD** Method: **E350.1**

Analysis Date: **05/19/15 15:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.902	0.055	1	0	90	80	120	0.8818	2.2	10	

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106261

Date: *15-Jun-15*

Run ID :Run Order: **FIA203-HE_150519C: 37** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**

Analysis Date: **05/19/15 15:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.450	0.050	0.5	0	90	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 40** SampType: **Sample Matrix Spike** Lab ID: **H15050235-018DMS** Method: **E350.1**

Analysis Date: **05/19/15 15:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.842	0.055	1	0	84	80	120				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 41** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-018DMSD** Method: **E350.1**

Analysis Date: **05/19/15 15:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.830	0.055	1	0	83	80	120	0.8419	1.4	10	

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 49** SampType: **Method Blank** Lab ID: **DISTILLED MBLK** Method: **E350.1**

Analysis Date: **05/19/15 15:55** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	ND	0.02									

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 50** SampType: **Laboratory Fortified Blank** Lab ID: **DILSTILLED LFB** Method: **E350.1**

Analysis Date: **05/19/15 15:57** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	1.31	0.050	1	0	131	90	110				S

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106261

Date: *15-Jun-15*

Run ID :Run Order: **FIA203-HE_150519C: 50** SampType: **Laboratory Fortified Blank** Lab ID: **DILSTILLED LFB** Method: **E350.1**

Analysis Date: **05/19/15 15:57** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 104** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E350.1**

Analysis Date: **05/19/15 15:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	15.5	0.50	15.2	0	102	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 105** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E350.1**

Analysis Date: **05/19/15 15:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.958	0.055	1	0	96	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 106** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**

Analysis Date: **05/19/15 15:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.466	0.050	0.5	0	93	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 107** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E350.1**

Analysis Date: **05/19/15 15:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	-0.00469	0.050		0		0	0				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106261

Date: *15-Jun-15*

Run ID :Run Order: **FIA203-HE_150519C: 113** SampType: **Sample Matrix Spike** Lab ID: **H15050235-002DMS** Method: **E350.1**

Analysis Date: **05/19/15 15:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.909	0.055	1	0	91	80	120				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 114** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-002DMSD** Method: **E350.1**

Analysis Date: **05/19/15 15:17** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.918	0.055	1	0	92	80	120	0.9089	1.0	10	

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 120** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**

Analysis Date: **05/19/15 15:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.455	0.050	0.5	0	91	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 126** SampType: **Sample Matrix Spike** Lab ID: **H15050235-011DMS** Method: **E350.1**

Analysis Date: **05/19/15 15:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.882	0.055	1	0	88	80	120				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 127** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-011DMSD** Method: **E350.1**

Analysis Date: **05/19/15 15:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.902	0.055	1	0	90	80	120	0.8818	2.2	10	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106261

Date: *15-Jun-15*

Run ID :Run Order: **FIA203-HE_150519C: 127** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-011DMSD** Method: **E350.1**

Analysis Date: **05/19/15 15:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 134** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**

Analysis Date: **05/19/15 15:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.450	0.050	0.5	0	90	90	110				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 137** SampType: **Sample Matrix Spike** Lab ID: **H15050235-018DMS** Method: **E350.1**

Analysis Date: **05/19/15 15:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.842	0.055	1	0	84	80	120				

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 138** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-018DMSD** Method: **E350.1**

Analysis Date: **05/19/15 15:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.830	0.055	1	0	83	80	120	0.8419	1.4	10	

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Run ID :Run Order: **FIA203-HE_150519C: 147** SampType: **Laboratory Fortified Blank** Lab ID: **DILSTILLED LFB** Method: **E350.1**

Analysis Date: **05/19/15 15:57** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	1.31	0.050	1	0	131	90	110				S

Associated samples: **H15050235-001D, H15050235-002D, H15050235-003D, H15050235-004D, H15050235-005D, H15050235-006D, H15050235-007D, H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D, H15050235-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106272

Date: *15-Jun-15*

Run ID :Run Order: **IC102-H_150519A: 12** SampType: **Method Blank** Lab ID: **ICB** Method: **E300.0**
Analysis Date: **05/19/15 15:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	0.05	0.010									
Sulfate	ND	0.009									

Associated samples: **H15050235-001A, H15050235-002A**

Run ID :Run Order: **IC102-H_150519A: 13** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E300.0**
Analysis Date: **05/19/15 15:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	100	1.0	100	0	100	90	110				
Sulfate	403	1.0	400	0	101	90	110				

Associated samples: **H15050235-001A, H15050235-002A**

Run ID :Run Order: **IC102-H_150519A: 14** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E300.0**
Analysis Date: **05/19/15 15:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	48.6	1.0	50	0.052	97	90	110				
Sulfate	197	1.0	200	0	98	90	110				

Associated samples: **H15050235-001A, H15050235-002A**

Run ID :Run Order: **IC102-H_150519A: 65** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV051915-4** Method: **E300.0**
Analysis Date: **05/20/15 01:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	98.2	1.0	100	0	98	90	110				
Sulfate	401	1.0	400	0	100	90	110				

Associated samples: **H15050235-001A, H15050235-002A**

Run ID :Run Order: **IC102-H_150519A: 73** SampType: **Sample Matrix Spike** Lab ID: **H15050231-001AMS** Method: **E300.0**
Analysis Date: **05/20/15 02:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	54.0	1.0	50	5.287	97	90	110				
Sulfate	303	1.0	200	92.73	105	90	110				

Associated samples: **H15050235-001A, H15050235-002A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106272

Date: *15-Jun-15*

Run ID :Run Order: **IC102-H_150519A: 74** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050231-001AMSD** Method: **E300.0**

Analysis Date: **05/20/15 02:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	53.9	1.0	50	5.287	**97**	90	110	53.97	**0.1**	20	
Sulfate	307	1.0	200	92.73	**107**	90	110	302.8	**1.2**	20	

Associated samples: **H15050235-001A, H15050235-002A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106275

Date: *15-Jun-15*

Run ID :Run Order: **FIA203-HE_150520A: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**
Analysis Date: **05/20/15 09:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.504	0.10	0.5	0	101	90	110				

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-018A**

Run ID :Run Order: **FIA203-HE_150520A: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**
Analysis Date: **05/20/15 09:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	-0.00434	0.10		0		0	0				

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-018A**

Run ID :Run Order: **FIA203-HE_150520A: 26** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**
Analysis Date: **05/20/15 09:43** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.530	0.10	0.5	0	106	90	110				

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-018A**

Run ID :Run Order: **FIA203-HE_150520A: 40** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**
Analysis Date: **05/20/15 10:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.517	0.10	0.5	0	103	90	110				

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106288

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150520A: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **05/20/15 10:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.762	0.10	0.8	0	95	95	105				
Calcium	40.5	1.0	40	0	101	95	105				
Iron	4.02	0.020	4	0	101	95	105				
Magnesium	40.3	1.0	40	0	101	95	105				
Sodium	40.2	1.0	40	0	101	95	105				

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C, H15050235-018C**

Run ID :Run Order: **ICP2-HE_150520A: 7** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-1** Method: **E200.7**

Analysis Date: **05/20/15 10:13** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.46	0.10	2.5	0	98	95	105				
Calcium	25.7	1.0	25	0	103	95	105				
Iron	2.55	0.020	2.5	0	102	95	105				
Magnesium	25.4	1.0	25	0	102	95	105				
Sodium	24.8	1.0	25	0	99	95	105				

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C, H15050235-018C**

Run ID :Run Order: **ICP2-HE_150520A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **05/20/15 10:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.00310	0.10		0		0	0				
Calcium	476	1.0	500	0	95	80	120				
Iron	188	0.020	200	0	94	80	120				
Magnesium	521	1.0	500	0	104	80	120				
Sodium	0.00641	1.0		0		0	0				

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C, H15050235-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106288

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150520A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **05/20/15 10:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.02	0.10	1	0	102	80	120				
Calcium	501	1.0	500	0	100	80	120				
Iron	198	0.020	200	0	99	80	120				
Magnesium	548	1.0	500	0	110	80	120				
Sodium	21.4	1.0	20	0	107	80	120				

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C, H15050235-018C**

Run ID :Run Order: **ICP2-HE_150520A: 43** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **05/20/15 12:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.50	0.10	2.5	0	100	90	110				
Calcium	24.8	1.0	25	0	99	90	110				
Iron	2.52	0.020	2.5	0	101	90	110				
Magnesium	25.4	1.0	25	0	102	90	110				
Sodium	25.0	1.0	25	0	100	90	110				

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C, H15050235-018C**

Run ID :Run Order: **ICP2-HE_150520A: 67** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **05/20/15 15:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.47	0.10	2.5	0	99	90	110				
Calcium	24.7	1.0	25	0	99	90	110				
Iron	2.47	0.020	2.5	0	99	90	110				
Magnesium	24.4	1.0	25	0	98	90	110				
Sodium	24.8	1.0	25	0	99	90	110				

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C, H15050235-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106288

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150520A: 78** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **05/20/15 15:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.45	0.10	2.5	0	98	90	110				
Calcium	24.9	1.0	25	0	100	90	110				
Iron	2.47	0.020	2.5	0	99	90	110				
Magnesium	24.3	1.0	25	0	97	90	110				
Sodium	24.9	1.0	25	0	100	90	110				

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C, H15050235-018C**

Run ID :Run Order: **ICP2-HE_150520A: 90** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **05/20/15 16:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.51	0.10	2.5	0	100	90	110				
Calcium	24.8	1.0	25	0	99	90	110				
Iron	2.49	0.020	2.5	0	100	90	110				
Magnesium	24.4	1.0	25	0	98	90	110				
Sodium	24.6	1.0	25	0	99	90	110				

Associated samples: **H15050235-001C, H15050235-002C, H15050235-003C, H15050235-004C, H15050235-005C, H15050235-006C, H15050235-007C, H15050235-008C, H15050235-009C, H15050235-010C, H15050235-011C, H15050235-012C, H15050235-013C, H15050235-014C, H15050235-015C, H15050235-016C, H15050235-017C, H15050235-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106295

Date: *15-Jun-15*

Run ID :Run Order: **IC102-H_150520A: 13** SampType: **Method Blank** Lab ID: **ICB** Method: **E300.0**
Analysis Date: **05/20/15 11:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	0.02	0.010									
Sulfate	ND	0.009									

Associated samples: **H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **IC102-H_150520A: 14** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E300.0**
Analysis Date: **05/20/15 11:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	104	1.0	100	0	**104**	90	110				
Sulfate	412	1.0	400	0	**103**	90	110				

Associated samples: **H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **IC102-H_150520A: 15** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E300.0**
Analysis Date: **05/20/15 11:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	48.9	1.0	50	0.02	**98**	90	110				
Sulfate	197	1.0	200	0	**98**	90	110				

Associated samples: **H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **IC102-H_150520A: 16** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV052015-1** Method: **E300.0**
Analysis Date: **05/20/15 11:55** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	103	1.0	100	0	**103**	90	110				
Sulfate	411	1.0	400	0	**103**	90	110				

Associated samples: **H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **IC102-H_150520A: 20** SampType: **Sample Duplicate** Lab ID: **H15040248-004ADUP** Method: **E300.0**
Analysis Date: **05/20/15 12:40** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	ND	1.0		0				0		20	
Sulfate	ND	1.0		0				0		20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106295

Date: *15-Jun-15*

Run ID :Run Order: **IC102-H_150520A: 20** SampType: **Sample Duplicate** Lab ID: **H15040248-004ADUP** Method: **E300.0**
Analysis Date: **05/20/15 12:40** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **IC102-H_150520A: 30** SampType: **Sample Matrix Spike** Lab ID: **H15050235-011AMS** Method: **E300.0**
Analysis Date: **05/20/15 14:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	49.8	1.0	50	0	100	90	110				
Sulfate	202	1.0	200	0.039	101	90	110				

Associated samples: **H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **IC102-H_150520A: 31** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-011AMSD** Method: **E300.0**
Analysis Date: **05/20/15 14:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	49.8	1.0	50	0	100	90	110	49.75	0.0	20	
Sulfate	204	1.0	200	0.039	102	90	110	201.9	0.9	20	

Associated samples: **H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **IC102-H_150520A: 32** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV052015-2** Method: **E300.0**
Analysis Date: **05/20/15 14:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	103	1.0	100	0	103	90	110				
Sulfate	413	1.0	400	0	103	90	110				

Associated samples: **H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **IC102-H_150520A: 45** SampType: **Sample Matrix Spike** Lab ID: **H15050261-002AMS** Method: **E300.0**
Analysis Date: **05/20/15 17:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	117	1.0	100	15.08	102	90	110				
Sulfate	772	1.0	400	353.5	105	90	110				

Associated samples: **H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106295

Date: *15-Jun-15*

Run ID :Run Order: **IC102-H_150520A: 46** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050261-002AMSD** Method: **E300.0**

Analysis Date: **05/20/15 17:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	117	1.0	100	15.08	**102**	90	110	117.1	**0.1**	20	
Sulfate	768	1.0	400	353.5	**104**	90	110	772.2	**0.6**	20	

Associated samples: **H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106315

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **05/20/15 10:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.299	0.10	0.3	0	100	90	110				
Antimony	0.0611	0.050	0.06	0	102	90	110				
Arsenic	0.0613	0.0050	0.06	0	102	90	110				
Barium	0.0601	0.10	0.06	0	100	90	110				
Beryllium	0.0306	0.0010	0.03	0	102	90	110				
Cadmium	0.0312	0.0010	0.03	0	104	90	110				
Chromium	0.0603	0.010	0.06	0	100	90	110				
Cobalt	0.0605	0.010	0.06	0	101	90	110				
Copper	0.0617	0.010	0.06	0	103	90	110				
Iron	0.316	0.020	0.3	0	105	90	110				
Lead	0.0604	0.010	0.06	0	101	90	110				
Manganese	0.301	0.010	0.3	0	100	90	110				
Molybdenum	0.0603	0.0050	0.06	0	101	90	110				
Nickel	0.0609	0.010	0.06	0	101	90	110				
Potassium	3.20	0.50	3	0	107	90	110				
Selenium	0.0596	0.0050	0.06	0	99	90	110				
Silver	0.0291	0.0050	0.03	0	97	90	110				
Uranium	0.0608	0.0010	0.06	0	101	90	110				
Vanadium	0.0593	0.10	0.06	0	99	90	110				
Zinc	0.0616	0.010	0.06	0	103	90	110				

Associated samples: **H15050235-001B, H15050235-001C, H15050235-002B, H15050235-002C, H15050235-003B, H15050235-003C, H15050235-004B, H15050235-004C, H15050235-005B, H15050235-005C, H15050235-006B, H15050235-006C, H15050235-007B, H15050235-007C, H15050235-008B, H15050235-008C, H15050235-009B, H15050235-009C, H15050235-010B, H15050235-010C, H15050235-011B, H15050235-011C, H15050235-012B, H15050235-012C, H15050235-013B, H15050235-013C, H15050235-014B, H15050235-014C, H15050235-015B, H15050235-015C, H15050235-016B, H15050235-016C, H15050235-017B, H15050235-017C, H15050235-018B, H15050235-018C**

Run ID :Run Order: **ICPMS204-B_150520A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **05/20/15 10:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.0	0.10	40	0	95	70	130				
Antimony	0.000114	0.050		0							
Arsenic	0.000163	0.0050		0							
Barium	9.80E-05	0.10		0							
Beryllium	-2.10E-05	0.0010		0							

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106315

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **05/20/15 10:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.000286	0.0010		0							
Chromium	0.00103	0.010		0							
Cobalt	1.80E-05	0.010		0							
Copper	0.000641	0.010		0							
Iron	99.6	0.020	100	0	**100**	70	130				
Lead	0.000242	0.010		0							
Manganese	0.000311	0.010		0							
Molybdenum	0.835	0.0050	0.8	0	**104**	70	130				
Nickel	0.000556	0.010		0							
Potassium	40.5	0.50	40	0	**101**	70	130				
Selenium	0.000514	0.0050		0							
Silver	0.000118	0.0050		0							
Uranium	0.000105	0.0010		0							
Vanadium	8.90E-05	0.10		0							
Zinc	0.000867	0.010		0							

Associated samples: **H15050235-001B, H15050235-001C, H15050235-002B, H15050235-002C, H15050235-003B, H15050235-003C, H15050235-004B, H15050235-004C, H15050235-005B, H15050235-005C, H15050235-006B, H15050235-006C, H15050235-007B, H15050235-007C, H15050235-008B, H15050235-008C, H15050235-009B, H15050235-009C, H15050235-010B, H15050235-010C, H15050235-011B, H15050235-011C, H15050235-012B, H15050235-012C, H15050235-013B, H15050235-013C, H15050235-014B, H15050235-014C, H15050235-015B, H15050235-015C, H15050235-016B, H15050235-016C, H15050235-017B, H15050235-017C, H15050235-018B, H15050235-018C**

Run ID :Run Order: **ICPMS204-B_150520A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **05/20/15 10:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.0	0.10	40	0	**95**	70	130				
Antimony	0.000284	0.050		0		0	0				
Arsenic	0.0109	0.0050	0.01	0	**109**	70	130				
Barium	7.20E-05	0.10		0		0	0				
Beryllium	3.00E-06	0.0010		0		0	0				
Cadmium	0.0106	0.0010	0.01	0	**106**	70	130				
Chromium	0.0222	0.010	0.02	0	**111**	70	130				
Cobalt	0.0214	0.010	0.02	0	**107**	70	130				
Copper	0.0212	0.010	0.02	0	**106**	70	130				
Iron	98.9	0.020	100	0	**99**	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106315

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **05/20/15 10:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.000239	0.010		0		0	0				
Manganese	0.0219	0.010	0.02	0	**109**	70	130				
Molybdenum	0.839	0.0050	0.8	0	**105**	70	130				
Nickel	0.0216	0.010	0.02	0	**108**	70	130				
Potassium	40.3	0.50	40	0	**101**	70	130				
Selenium	0.0106	0.0050	0.01	0	**106**	70	130				
Silver	0.0184	0.0050	0.02	0	**92**	70	130				
Uranium	2.80E-05	0.0010		0		0	0				
Vanadium	0.0214	0.10	0.02	0	**107**	70	130				
Zinc	0.0110	0.010	0.01	0	**110**	70	130				

Associated samples: **H15050235-001B, H15050235-001C, H15050235-002B, H15050235-002C, H15050235-003B, H15050235-003C, H15050235-004B, H15050235-004C, H15050235-005B, H15050235-005C, H15050235-006B, H15050235-006C, H15050235-007B, H15050235-007C, H15050235-008B, H15050235-008C, H15050235-009B, H15050235-009C, H15050235-010B, H15050235-010C, H15050235-011B, H15050235-011C, H15050235-012B, H15050235-012C, H15050235-013B, H15050235-013C, H15050235-014B, H15050235-014C, H15050235-015B, H15050235-015C, H15050235-016B, H15050235-016C, H15050235-017B, H15050235-017C, H15050235-018B, H15050235-018C**

Run ID :Run Order: **ICPMS204-B_150520A: 17** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **05/20/15 11:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.002	0.0008									
Antimony	ND	4E-05									
Arsenic	ND	6E-05									
Barium	0.0002	8E-05									
Beryllium	ND	0.0002									
Cadmium	ND	2E-05									
Chromium	ND	3E-05									
Cobalt	ND	3E-05									
Copper	0.0006	6E-05									
Iron	0.004	0.0008									
Lead	4E-05	3E-05									
Manganese	6E-05	4E-05									
Molybdenum	ND	3E-05									
Nickel	4E-05	3E-05									
Potassium	ND	0.008									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106315

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 17** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **05/20/15 11:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	ND	4E-05									
Silver	ND	3E-05									
Uranium	ND	1.0E-05									
Vanadium	ND	3E-05									
Zinc	0.0007	0.0001									

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICPMS204-B_150520A: 18** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**

Analysis Date: **05/20/15 11:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0529	0.10	0.05	0.002403	**101**	85	115				
Antimony	0.0488	0.050	0.05	0	**98**	85	115				
Arsenic	0.0512	0.0050	0.05	0	**102**	85	115				
Barium	0.0508	0.10	0.05	0.0002369	**101**	85	115				
Beryllium	0.0501	0.0010	0.05	0	**100**	85	115				
Cadmium	0.0521	0.0010	0.05	0	**104**	85	115				
Chromium	0.0512	0.010	0.05	0	**102**	85	115				
Cobalt	0.0518	0.010	0.05	0	**104**	85	115				
Copper	0.0535	0.010	0.05	0.0006383	**106**	85	115				
Iron	0.162	0.020	0.15	0.003668	**105**	85	115				
Lead	0.0512	0.010	0.05	0.000041	**102**	85	115				
Manganese	0.0521	0.010	0.05	0.0000568	**104**	85	115				
Molybdenum	0.0507	0.0050	0.05	0	**101**	85	115				
Nickel	0.0520	0.010	0.05	0.0000381	**104**	85	115				
Potassium	1.04	0.50	1	0	**104**	85	115				
Selenium	0.0513	0.0050	0.05	0	**103**	85	115				
Silver	0.0208	0.0050	0.02	0	**104**	85	115				
Uranium	0.0491	0.0010	0.05	0	**98**	85	115				
Vanadium	0.0502	0.10	0.05	0	**100**	85	115				
Zinc	0.0552	0.010	0.05	0.0007073	**109**	85	115				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106315

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 18** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**

Analysis Date: **05/20/15 11:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICPMS204-B_150520A: 66** SampType: **Sample Matrix Spike** Lab ID: **H15050235-006BMS** Method: **E200.8**

Analysis Date: **05/20/15 14:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0558	0.030	0.05	0.007195	97	70	130				
Antimony	0.0485	0.0010	0.05	0.000203	97	70	130				
Arsenic	0.0583	0.0010	0.05	0.005469	106	70	130				
Barium	0.0834	0.050	0.05	0.03273	101	70	130				
Beryllium	0.0492	0.0010	0.05	0	98	70	130				
Cadmium	0.0506	0.0010	0.05	0.000168	101	70	130				
Chromium	0.0486	0.0050	0.05	0.0001045	97	70	130				
Cobalt	0.0494	0.0050	0.05	0.0001962	98	70	130				
Copper	0.0645	0.0050	0.05	0.01493	99	70	130				
Iron	0.286	0.020	0.15	0.1347	101	70	130				
Lead	0.0508	0.0010	0.05	0.0003341	101	70	130				
Manganese	0.240	0.0010	0.05	0.1892	101	70	130				
Molybdenum	0.0538	0.0010	0.05	0.005211	97	70	130				
Nickel	0.0494	0.0050	0.05	0.0005295	98	70	130				
Potassium	5.46	1.0	1	4.549		70	130				A
Selenium	0.0534	0.0010	0.05	0.0001373	107	70	130				
Silver	0.0185	0.0010	0.02	0	92	70	130				
Uranium	0.0532	0.00030	0.05	0.003669	99	70	130				
Vanadium	0.0499	0.010	0.05	0.001734	96	70	130				
Zinc	0.0970	0.010	0.05	0.04473	105	70	130				

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106315

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 67** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-006BMSD** Method: **E200.8**

Analysis Date: **05/20/15 14:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0551	0.030	0.05	0.007195	96	70	130	0.05582	1.3	20	
Antimony	0.0486	0.0010	0.05	0.000203	97	70	130	0.0485	0.1	20	
Arsenic	0.0577	0.0010	0.05	0.005469	105	70	130	0.05829	1.0	20	
Barium	0.0822	0.050	0.05	0.03273	99	70	130	0.08342	1.5	20	
Beryllium	0.0505	0.0010	0.05	0	101	70	130	0.04922	2.5	20	
Cadmium	0.0500	0.0010	0.05	0.000168	100	70	130	0.05059	1.2	20	
Chromium	0.0486	0.0050	0.05	0.0001045	97	70	130	0.04863	0.1	20	
Cobalt	0.0484	0.0050	0.05	0.0001962	96	70	130	0.04935	1.9	20	
Copper	0.0639	0.0050	0.05	0.01493	98	70	130	0.06452	0.9	20	
Iron	0.284	0.020	0.15	0.1347	100	70	130	0.2863	0.6	20	
Lead	0.0497	0.0010	0.05	0.0003341	99	70	130	0.05079	2.2	20	
Manganese	0.239	0.0010	0.05	0.1892	100	70	130	0.2396	0.1	20	
Molybdenum	0.0541	0.0010	0.05	0.005211	98	70	130	0.05384	0.5	20	
Nickel	0.0491	0.0050	0.05	0.0005295	97	70	130	0.04942	0.6	20	
Potassium	5.53	1.0	1	4.549		70	130	5.465	1.2	20	A
Selenium	0.0527	0.0010	0.05	0.0001373	105	70	130	0.05345	1.4	20	
Silver	0.0188	0.0010	0.02	0	94	70	130	0.01848	1.9	20	
Uranium	0.0532	0.00030	0.05	0.003669	99	70	130	0.05325	0.0	20	
Vanadium	0.0499	0.010	0.05	0.001734	96	70	130	0.04986	0.0	20	
Zinc	0.0972	0.010	0.05	0.04473	105	70	130	0.09701	0.2	20	

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICPMS204-B_150520A: 98** SampType: **Sample Matrix Spike** Lab ID: **H15050235-016BMS** Method: **E200.8**

Analysis Date: **05/20/15 15:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0581	0.030	0.05	0.007614	101	70	130				
Antimony	0.0481	0.0010	0.05	0.0001534	96	70	130				
Arsenic	0.0598	0.0010	0.05	0.005571	108	70	130				
Barium	0.0765	0.050	0.05	0.02647	100	70	130				
Beryllium	0.0477	0.0010	0.05	0	95	70	130				
Cadmium	0.0505	0.0010	0.05	0.0001333	101	70	130				
Chromium	0.0492	0.0050	0.05	0.0000652	98	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106315

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 98** SampType: **Sample Matrix Spike** Lab ID: **H15050235-016BMS** Method: **E200.8**

Analysis Date: **05/20/15 15:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt	0.0504	0.0050	0.05	0.00105	99	70	130				
Copper	0.0589	0.0050	0.05	0.009616	99	70	130				
Iron	0.197	0.020	0.15	0.04982	98	70	130				
Lead	0.0501	0.0010	0.05	0.0001851	100	70	130				
Manganese	0.162	0.0010	0.05	0.1122	100	70	130				
Molybdenum	0.0515	0.0010	0.05	0.002432	98	70	130				
Nickel	0.0496	0.0050	0.05	0.000582	98	70	130				
Potassium	4.61	1.0	1	3.469	114	70	130				
Selenium	0.0536	0.0010	0.05	0.0004684	106	70	130				
Silver	0.0184	0.0010	0.02	0	92	70	130				
Uranium	0.0516	0.00030	0.05	0.002187	99	70	130				
Vanadium	0.0507	0.010	0.05	0.001495	98	70	130				
Zinc	0.0831	0.010	0.05	0.03123	104	70	130				

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Run ID :Run Order: **ICPMS204-B_150520A: 99** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-016BMSD** Method: **E200.8**

Analysis Date: **05/20/15 15:59** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0572	0.030	0.05	0.007614	99	70	130	0.05811	1.6	20	
Antimony	0.0493	0.0010	0.05	0.0001534	98	70	130	0.04808	2.4	20	
Arsenic	0.0586	0.0010	0.05	0.005571	106	70	130	0.05977	2.0	20	
Barium	0.0776	0.050	0.05	0.02647	102	70	130	0.07655	1.3	20	
Beryllium	0.0509	0.0010	0.05	0	102	70	130	0.04771	6.5	20	
Cadmium	0.0513	0.0010	0.05	0.0001333	102	70	130	0.05054	1.6	20	
Chromium	0.0486	0.0050	0.05	0.0000652	97	70	130	0.04915	1.0	20	
Cobalt	0.0501	0.0050	0.05	0.00105	98	70	130	0.0504	0.6	20	
Copper	0.0587	0.0050	0.05	0.009616	98	70	130	0.05892	0.4	20	
Iron	0.195	0.020	0.15	0.04982	97	70	130	0.1973	1.2	20	
Lead	0.0501	0.0010	0.05	0.0001851	100	70	130	0.0501	0.1	20	
Manganese	0.162	0.0010	0.05	0.1122	99	70	130	0.1624	0.6	20	
Molybdenum	0.0520	0.0010	0.05	0.002432	99	70	130	0.05146	1.0	20	
Nickel	0.0494	0.0050	0.05	0.000582	98	70	130	0.04959	0.3	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106315

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150520A: 99** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15050235-016BMSD** Method: **E200.8**

Analysis Date: **05/20/15 15:59** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 20	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	4.48	1.0	1	3.469	101	70	130	4.609	2.8	20	
Selenium	0.0533	0.0010	0.05	0.0004684	106	70	130	0.05365	0.6	20	
Silver	0.0192	0.0010	0.02	0	96	70	130	0.01838	4.1	20	
Uranium	0.0517	0.00030	0.05	0.002187	99	70	130	0.05158	0.3	20	
Vanadium	0.0496	0.010	0.05	0.001495	96	70	130	0.05066	2.2	20	
Zinc	0.0842	0.010	0.05	0.03123	106	70	130	0.0831	1.3	20	

Associated samples: **H15050235-001B, H15050235-002B, H15050235-003B, H15050235-004B, H15050235-005B, H15050235-006B, H15050235-007B, H15050235-008B, H15050235-009B, H15050235-010B, H15050235-011B, H15050235-012B, H15050235-013B, H15050235-014B, H15050235-015B, H15050235-016B, H15050235-017B, H15050235-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106324

Date: *15-Jun-15*

Run ID :Run Order: **FIA202-HE_150521B: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E365.1**

Analysis Date: **05/21/15 13:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.248	0.010	0.25	0	99	90	110				

Associated samples: **H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D**

Run ID :Run Order: **FIA202-HE_150521B: 10** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **05/21/15 13:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.0908	0.010	0.1	0	91	90	110				

Associated samples: **H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D**

Run ID :Run Order: **FIA202-HE_150521B: 11** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E365.1**

Analysis Date: **05/21/15 13:43** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	-0.00315	0.010		0		0	0				

Associated samples: **H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D**

Run ID :Run Order: **FIA202-HE_150521B: 43** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **05/21/15 14:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.0929	0.010	0.1	0	93	90	110				

Associated samples: **H15050235-008D, H15050235-009D, H15050235-010D, H15050235-011D, H15050235-012D, H15050235-013D, H15050235-014D, H15050235-015D, H15050235-016D, H15050235-017D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106329

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150521B: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **05/21/15 10:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0620	0.050	0.06	0	103	90	110				

Associated samples: **H15050235-006C, H15050235-008C, H15050235-016C**

Run ID :Run Order: **ICPMS204-B_150521B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **05/21/15 10:36** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.000126	0.050		0							

Associated samples: **H15050235-006C, H15050235-008C, H15050235-016C**

Run ID :Run Order: **ICPMS204-B_150521B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **05/21/15 10:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.000341	0.050		0		0	0				

Associated samples: **H15050235-006C, H15050235-008C, H15050235-016C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106340

Date: *15-Jun-15*

Run ID :Run Order: **FIA203-HE_150522A: 10** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**

Analysis Date: **05/22/15 09:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.483	0.10	0.5	0	97	90	110				

Associated samples: **H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A**

Run ID :Run Order: **FIA203-HE_150522A: 11** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**

Analysis Date: **05/22/15 09:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	-0.0594	0.10		0		0	0				

Associated samples: **H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A**

Run ID :Run Order: **FIA203-HE_150522A: 27** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**

Analysis Date: **05/22/15 09:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.510	0.10	0.5	0	102	90	110				

Associated samples: **H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106581

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150602B: 8** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **06/02/15 18:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 18	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0577	0.0010	0.06	0	96	90	110				
Arsenic	0.0581	0.0010	0.06	0	97	90	110				
Barium	0.0567	0.0010	0.06	0	94	90	110				
Beryllium	0.0297	0.0010	0.03	0	99	90	110				
Cadmium	0.0297	0.0010	0.03	0	99	90	110				
Chromium	0.0575	0.0010	0.06	0	96	90	110				
Cobalt	0.0577	0.0010	0.06	0	96	90	110				
Copper	0.0593	0.0010	0.06	0	99	90	110				
Iron	0.316	0.0010	0.3	0	105	90	110				
Lead	0.0570	0.0010	0.06	0	95	90	110				
Manganese	0.288	0.0010	0.3	0	96	90	110				
Molybdenum	0.0568	0.0010	0.06	0	95	90	110				
Nickel	0.0581	0.0010	0.06	0	97	90	110				
Selenium	0.0591	0.0010	0.06	0	98	90	110				
Silver	0.0278	0.0010	0.03	0	93	90	110				
Uranium	0.0574	0.00030	0.06	0	96	90	110				
Vanadium	0.0571	0.0010	0.06	0	95	90	110				
Zinc	0.0594	0.0010	0.06	0	99	90	110				

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A, H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A, H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106633

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150603B: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **06/03/15 08:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.05	0.10	4	0	101	90	110				
Boron	0.807	0.10	0.8	0	101	90	110				
Copper	0.782	0.010	0.8	0	98	90	110				
Iron	3.90	0.020	4	0	98	90	110				
Manganese	3.91	0.010	4	0	98	90	110				

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A, H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-049A, H15050235-050A, H15050235-052A, H15050235-053A, H15050235-055A, H15050235-056A, H15050235-058A, H15050235-059A**

Run ID :Run Order: **ICP2-HE_150603B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **06/03/15 09:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	545	0.10	500	0	109	80	120				
Boron	0.00854	0.10		0		0	0				
Copper	-0.00394	0.010		0		0	0				
Iron	191	0.020	200	0	95	80	120				
Manganese	-0.00635	0.010		0		0	0				

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A, H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-049A, H15050235-050A, H15050235-052A, H15050235-053A, H15050235-055A, H15050235-056A, H15050235-058A, H15050235-059A**

Run ID :Run Order: **ICP2-HE_150603B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **06/03/15 09:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	538	0.10	500	0	108	80	120				
Boron	1.00	0.10	1	0	100	80	120				
Copper	0.508	0.010	0.5	0	102	80	120				
Iron	188	0.020	200	0	94	80	120				
Manganese	0.480	0.010	0.5	0	96	80	120				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106633

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150603B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **06/03/15 09:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A, H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-049A, H15050235-050A, H15050235-052A, H15050235-053A, H15050235-055A, H15050235-056A, H15050235-058A, H15050235-059A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106647

Date: *15-Jun-15*

Run ID :Run Order: **SOIL DRYING OVEN 2_150604A: 1** SampType: **Sample Duplicate** Lab ID: **H15050235-020ADUP** Method: **D2974**

Analysis Date: **06/05/15 13:46** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	26.0	0.20		0				25.24	3.0	20	

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A, H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A, H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A, H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **SOIL DRYING OVEN 2_150604A: 2** SampType: **Sample Duplicate** Lab ID: **H15050235-030ADUP** Method: **D2974**

Analysis Date: **06/05/15 13:46** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	17.7	0.20		0				21.01	17	20	

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A, H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A, H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A, H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **SOIL DRYING OVEN 2_150604A: 3** SampType: **Sample Duplicate** Lab ID: **H15050235-040ADUP** Method: **D2974**

Analysis Date: **06/05/15 13:46** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	61.3	0.20		0				68.72	11	20	

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A, H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A, H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A, H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **SOIL DRYING OVEN 2_150604A: 4** SampType: **Sample Duplicate** Lab ID: **H15050235-050ADUP** Method: **D2974**

Analysis Date: **06/05/15 13:46** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	32.3	0.20		0				34.03	5.3	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106647

Date: *15-Jun-15*

Run ID :Run Order: **SOIL DRYING OVEN 2_150604A: 4** SampType: **Sample Duplicate** Lab ID: **H15050235-050ADUP** Method: **D2974**

Analysis Date: **06/05/15 13:46** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A, H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A, H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A, H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **SOIL DRYING OVEN 2_150604A: 5** SampType: **Sample Duplicate** Lab ID: **H15050235-060ADUP** Method: **D2974**

Analysis Date: **06/05/15 13:46** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	17.7	0.20		0				18.36	3.5	20	

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A, H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A, H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A, H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **SOIL DRYING OVEN 2_150604A: 6** SampType: **Sample Duplicate** Lab ID: **H15050235-066ADUP** Method: **D2974**

Analysis Date: **06/05/15 13:46** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	20.4	0.20		0				20.56	0.8	20	

Associated samples: **H15050235-019A, H15050235-020A, H15050235-021A, H15050235-022A, H15050235-023A, H15050235-024A, H15050235-025A, H15050235-026A, H15050235-027A, H15050235-028A, H15050235-029A, H15050235-030A, H15050235-031A, H15050235-032A, H15050235-033A, H15050235-034A, H15050235-035A, H15050235-036A, H15050235-037A, H15050235-038A, H15050235-039A, H15050235-040A, H15050235-041A, H15050235-042A, H15050235-043A, H15050235-044A, H15050235-045A, H15050235-046A, H15050235-047A, H15050235-048A, H15050235-049A, H15050235-050A, H15050235-051A, H15050235-052A, H15050235-053A, H15050235-054A, H15050235-055A, H15050235-056A, H15050235-057A, H15050235-058A, H15050235-059A, H15050235-060A, H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106656

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150605B: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **06/05/15 10:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.07	0.10	4	0	102	90	110				
Boron	0.811	0.10	0.8	0	101	90	110				

Associated samples: **H15050235-019A, H15050235-037A, H15050235-046A, H15050235-048A, H15050235-051A, H15050235-052A, H15050235-054A, H15050235-057A, H15050235-060A**

Run ID :Run Order: **ICP2-HE_150605B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **06/05/15 11:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	532	0.10	500	0	106	80	120				
Boron	0.00593	0.10		0		0	0				

Associated samples: **H15050235-019A, H15050235-037A, H15050235-046A, H15050235-048A, H15050235-051A, H15050235-052A, H15050235-054A, H15050235-057A, H15050235-060A**

Run ID :Run Order: **ICP2-HE_150605B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **06/05/15 11:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	532	0.10	500	0	106	80	120				
Boron	1.01	0.10	1	0	101	80	120				

Associated samples: **H15050235-019A, H15050235-037A, H15050235-046A, H15050235-048A, H15050235-051A, H15050235-052A, H15050235-054A, H15050235-057A, H15050235-060A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106681

Date: *15-Jun-15*

Run ID :Run Order: **ICP2-HE_150608A: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **06/08/15 10:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.06	0.10	4	0	101	90	110				
Barium	0.788	0.10	0.8	0	98	90	110				
Boron	0.796	0.10	0.8	0	99	90	110				
Copper	0.796	0.010	0.8	0	100	90	110				
Iron	3.98	0.020	4	0	100	90	110				
Manganese	3.93	0.010	4	0	98	90	110				
Zinc	0.799	0.010	0.8	0	100	90	110				

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **ICP2-HE_150608A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **06/08/15 10:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	518	0.10	500	0	104	80	120				
Barium	0.000510	0.10		0		0	0				
Boron	0.0106	0.10		0		0	0				
Copper	-0.00160	0.010		0		0	0				
Iron	182	0.020	200	0	91	80	120				
Manganese	-0.00743	0.010		0		0	0				
Zinc	0.00302	0.010		0		0	0				

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Run ID :Run Order: **ICP2-HE_150608A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **06/08/15 10:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	517	0.10	500	0	103	80	120				
Barium	0.493	0.10	0.5	0	99	80	120				
Boron	0.975	0.10	1	0	98	80	120				
Copper	0.496	0.010	0.5	0	99	80	120				
Iron	182	0.020	200	0	91	80	120				
Manganese	0.457	0.010	0.5	0	91	80	120				
Zinc	0.975	0.010	1	0	97	80	120				

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106749

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150610B: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **06/10/15 17:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0620	0.0010	0.06	0	**103**	90	110				
Beryllium	0.0311	0.0010	0.03	0	**104**	90	110				
Cadmium	0.0319	0.0010	0.03	0	**106**	90	110				
Cobalt	0.0632	0.0010	0.06	0	**105**	90	110				
Lead	0.0606	0.0010	0.06	0	**101**	90	110				
Molybdenum	0.0608	0.0010	0.06	0	**101**	90	110				
Selenium	0.0638	0.0010	0.06	0	**106**	90	110				
Silver	0.0297	0.0010	0.03	0	**99**	90	110				
Uranium	0.0623	0.00030	0.06	0	**104**	90	110				
Vanadium	0.0616	0.0010	0.06	0	**103**	90	110				

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R106773

Date: *15-Jun-15*

Run ID :Run Order: **ICPMS204-B_150611B: 16** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **06/11/15 10:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.0606	0.0010	0.06	0	**101**	90	110				
Chromium	0.0598	0.0010	0.06	0	**100**	90	110				
Nickel	0.0609	0.0010	0.06	0	**102**	90	110				

Associated samples: **H15050235-061A, H15050235-062A, H15050235-063A, H15050235-064A, H15050235-065A, H15050235-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15050235
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: TSS150518A

Date: *15-Jun-15*

Run ID :Run Order: **ACCU-124 (14410200)_150518A: 1** SampType: **Method Blank** Lab ID: **MB-1_150518A** Method: **A2540 D**

Analysis Date: **05/18/15 14:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	0.1									

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **ACCU-124 (14410200)_150518A: 2** SampType: **Laboratory Control Sample** Lab ID: **LCS-2_150518A** Method: **A2540 D**

Analysis Date: **05/18/15 14:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	104	10	100	0	**104**	80	120				

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **ACCU-124 (14410200)_150518A: 1** SampType: **Sample Duplicate** Lab ID: **H15050235-008ADUP** Method: **A2540 D**

Analysis Date: **05/18/15 14:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	19.6	10		0				19	**3.1**	5	

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Run ID :Run Order: **ACCU-124 (14410200)_150518A: 2** SampType: **Sample Duplicate** Lab ID: **H15050235-018ADUP** Method: **A2540 D**

Analysis Date: **05/18/15 14:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	18.8	10		0				17.6	**6.6**	5	R

Associated samples: **H15050235-001A, H15050235-002A, H15050235-003A, H15050235-004A, H15050235-005A, H15050235-006A, H15050235-007A, H15050235-008A, H15050235-009A, H15050235-010A, H15050235-011A, H15050235-012A, H15050235-013A, H15050235-014A, H15050235-015A, H15050235-016A, H15050235-017A, H15050235-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Work Order Receipt Checklist

MT DEQ-Federal Superfund

H15050235

Login completed by: Tracy L. Lorash

Reviewed by: BL2000\rwilliams

Reviewed Date: 5/22/2015

Date Received: 5/18/2015

Received by: jcm

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	°C See comments		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

Sample ID on COC contains a comma for Field Duplicate samples SS-06G, SS-11D, SS-15A and SS-17D -ID on bottles/jars does not. Logged in with ID from COC.
Cooler 1 was received at 3.1°C, Cooler 2 at 3.1°C, Cooler 3 at 1.0°C, Cooler 4 at 5.4°C, Box 1 at 17.5°C, Box 2 at 17.4°C. The temperature for Coolers 1, 2 and 4 were taken from a temperature blank and the temperature for Cooler 3 and Box 1 and 2 was taken from a client sample. Samples in Coolers were received on wet ice, samples in Boxes were not received on ice. tl 5/19/15

ANALYTICAL SUMMARY REPORT

May 27, 2015

MT DEQ-Federal Superfund
PO Box 200901
Helena, MT 59620-0901

Work Order: H15050137 Quote ID: H1088 - Silver Bow Monitoring

Project Name: Silver Bow Creek Monitoring 2nd Q 2015

Energy Laboratories Inc Helena MT received the following 16 samples for MT DEQ-Federal Superfund on 5/8/2015 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H15050137-001	LYS-01	05/07/15 18:00	05/08/15	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Mercury, Dissolved Hardness as CaCO3 Anions by Ion Chromatography Preparation, Dissolved Filtration Digestion, Mercury by CVAA
H15050137-002	LYS-02	05/07/15 16:35	05/08/15	Aqueous	Same As Above
H15050137-003	LYS-03	05/07/15 17:40	05/08/15	Aqueous	Metals by ICP/ICPMS, Dissolved Mercury, Dissolved Hardness as CaCO3 Preparation, Dissolved Filtration Digestion, Mercury by CVAA
H15050137-004	LYS-04	05/07/15 16:20	05/08/15	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Mercury, Dissolved Hardness as CaCO3 Anions by Ion Chromatography Preparation, Dissolved Filtration Digestion, Mercury by CVAA
H15050137-005	LYS-05	05/07/15 16:25	05/08/15	Aqueous	Same As Above
H15050137-006	LYS-06	05/07/15 18:30	05/08/15	Aqueous	Same As Above
H15050137-007	LYS-07	05/07/15 16:45	05/08/15	Aqueous	Metals by ICP/ICPMS, Dissolved Mercury, Dissolved Hardness as CaCO3 Preparation, Dissolved Filtration Digestion, Mercury by CVAA
H15050137-008	LYS-08	05/07/15 17:30	05/08/15	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Mercury, Dissolved Hardness as CaCO3 Anions by Ion Chromatography Preparation, Dissolved Filtration Digestion, Mercury by CVAA
H15050137-009	MW-2A	05/07/15 17:20	05/08/15	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Conductivity Mercury, Dissolved Hardness as CaCO3 Anions by Ion Chromatography Preparation, Dissolved Filtration Digestion, Mercury by CVAA
H15050137-010	MW-2B	05/07/15 15:43	05/08/15	Aqueous	Same As Above

ANALYTICAL SUMMARY REPORT

H15050137-011	MW-2C	05/07/15 14:50	05/08/15	Aqueous	Same As Above
H15050137-012	Duplicate 1 GW-1056	05/07/15 13:30	05/08/15	Aqueous	Same As Above
H15050137-013	1GW-1056	05/07/15 13:30	05/08/15	Aqueous	Same As Above
H15050137-014	Field Blank MW-2C	05/07/15 13:10	05/08/15	Aqueous	Same As Above
H15050137-015	LYP-07	05/07/15 13:10	05/08/15	Aqueous	Same As Above
H15050137-016	MW-2D	05/07/15 12:40	05/08/15	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Conductivity Mercury, Dissolved Hardness as CaCO3 Anions by Ion Chromatography Metals Digestion by EPA 200.2 Preparation, Dissolved Filtration Digestion, Mercury by CVAA

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring 2nd Q 2015
Lab ID: H15050137-001
Client Sample ID: LYS-01

Report Date: 05/27/15
Collection Date: 05/07/15 18:00
DateReceived: 05/08/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	150	mg/L		4		A2320 B	05/14/15 13:28 / SRW
Bicarbonate as HCO3	180	mg/L		4		A2320 B	05/14/15 13:28 / SRW
Chloride	20	mg/L		1		E300.0	05/12/15 20:57 / SRW
Sulfate	189	mg/L		1		E300.0	05/12/15 20:57 / SRW
Hardness as CaCO3	273	mg/L		1		A2340 B	05/14/15 16:52 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	05/11/15 18:15 / dck
Antimony	ND	mg/L		0.0005		E200.8	05/11/15 18:15 / dck
Arsenic	0.004	mg/L		0.001		E200.8	05/11/15 18:15 / dck
Barium	0.034	mg/L		0.003		E200.8	05/11/15 18:15 / dck
Beryllium	ND	mg/L		0.0008		E200.8	05/11/15 18:15 / dck
Boron	ND	mg/L		0.1		E200.7	05/11/15 13:08 / sld
Cadmium	ND	mg/L		0.00003		E200.8	05/11/15 18:15 / dck
Calcium	80	mg/L		1		E200.7	05/11/15 13:08 / sld
Chromium	ND	mg/L		0.01		E200.8	05/11/15 18:15 / dck
Cobalt	ND	mg/L		0.01		E200.8	05/11/15 18:15 / dck
Copper	ND	mg/L		0.001		E200.8	05/11/15 18:15 / dck
Iron	ND	mg/L		0.02		E200.8	05/11/15 18:15 / dck
Lead	ND	mg/L		0.0003		E200.8	05/11/15 18:15 / dck
Magnesium	18	mg/L		1		E200.7	05/11/15 13:08 / sld
Manganese	ND	mg/L		0.001		E200.8	05/11/15 18:15 / dck
Mercury	ND	mg/L		5E-06		E245.1	05/13/15 12:41 / rgk
Molybdenum	ND	mg/L		0.005		E200.8	05/11/15 18:15 / dck
Nickel	ND	mg/L		0.002		E200.8	05/11/15 18:15 / dck
Potassium	2	mg/L		1		E200.7	05/11/15 13:08 / sld
Selenium	0.005	mg/L		0.001		E200.8	05/11/15 18:15 / dck
Silver	ND	mg/L		0.0002		E200.8	05/11/15 18:15 / dck
Sodium	30	mg/L		1		E200.7	05/11/15 13:08 / sld
Uranium	0.0619	mg/L		0.0002		E200.8	05/11/15 18:15 / dck
Vanadium	ND	mg/L		0.1		E200.8	05/11/15 18:15 / dck
Zinc	ND	mg/L		0.008		E200.8	05/11/15 18:15 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring 2nd Q 2015
Lab ID: H15050137-002
Client Sample ID: LYS-02

Report Date: 05/27/15
Collection Date: 05/07/15 16:35
DateReceived: 05/08/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	560	mg/L		4.0		A2320 B	05/12/15 18:12 / SRW
Bicarbonate as HCO3	680	mg/L		4.0		A2320 B	05/12/15 18:12 / SRW
Chloride	37	mg/L		1		E300.0	05/12/15 21:08 / SRW
Sulfate	6130	mg/L		1		E300.0	05/14/15 00:03 / SRW
Hardness as CaCO3	1550	mg/L		1		A2340 B	05/11/15 13:11 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	05/11/15 18:18 / dck
Antimony	0.0006	mg/L		0.0005		E200.8	05/15/15 13:16 / dck
Arsenic	0.028	mg/L		0.001		E200.8	05/11/15 18:18 / dck
Barium	0.011	mg/L		0.003		E200.8	05/11/15 18:18 / dck
Beryllium	ND	mg/L		0.0008		E200.8	05/11/15 18:18 / dck
Boron	0.5	mg/L		0.1		E200.7	05/11/15 13:11 / sld
Cadmium	0.00005	mg/L		0.00003		E200.8	05/11/15 18:18 / dck
Calcium	323	mg/L		1		E200.7	05/11/15 13:11 / sld
Chromium	ND	mg/L		0.01		E200.8	05/11/15 18:18 / dck
Cobalt	ND	mg/L		0.01		E200.8	05/11/15 18:18 / dck
Copper	0.009	mg/L		0.001		E200.8	05/11/15 18:18 / dck
Iron	ND	mg/L		0.02		E200.8	05/11/15 18:18 / dck
Lead	ND	mg/L		0.0003		E200.8	05/11/15 18:18 / dck
Magnesium	181	mg/L		1		E200.7	05/11/15 13:11 / sld
Manganese	ND	mg/L		0.001		E200.8	05/11/15 18:18 / dck
Mercury	0.000024	mg/L		5E-06		E245.1	05/13/15 12:45 / rgk
Molybdenum	0.045	mg/L		0.005		E200.8	05/11/15 18:18 / dck
Nickel	ND	mg/L		0.002		E200.8	05/11/15 18:18 / dck
Potassium	2	mg/L		1		E200.7	05/11/15 13:11 / sld
Selenium	0.018	mg/L		0.001		E200.8	05/11/15 18:18 / dck
Silver	ND	mg/L		0.0002		E200.8	05/11/15 18:18 / dck
Sodium	2240	mg/L		1		E200.7	05/11/15 13:11 / sld
Uranium	0.806	mg/L		0.0002		E200.8	05/11/15 18:18 / dck
Vanadium	ND	mg/L		0.1		E200.8	05/11/15 18:18 / dck
Zinc	0.014	mg/L		0.008		E200.8	05/11/15 18:18 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring 2nd Q 2015
Lab ID: H15050137-003
Client Sample ID: LYS-03

Report Date: 05/27/15
Collection Date: 05/07/15 17:40
DateReceived: 05/08/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Hardness as CaCO3	123	mg/L		1		A2340 B	05/14/15 16:52 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	05/11/15 18:31 / dck
Antimony	ND	mg/L	D	0.001		E200.8	05/11/15 18:31 / dck
Arsenic	0.081	mg/L		0.001		E200.8	05/11/15 18:31 / dck
Barium	0.030	mg/L		0.003		E200.8	05/11/15 18:31 / dck
Beryllium	ND	mg/L		0.0008		E200.8	05/11/15 18:31 / dck
Boron	0.1	mg/L		0.1		E200.7	05/11/15 13:23 / sld
Cadmium	ND	mg/L		0.00003		E200.8	05/11/15 18:31 / dck
Calcium	38	mg/L		1		E200.7	05/11/15 13:23 / sld
Chromium	ND	mg/L		0.01		E200.8	05/11/15 18:31 / dck
Cobalt	ND	mg/L		0.01		E200.8	05/11/15 18:31 / dck
Copper	0.002	mg/L		0.001		E200.8	05/11/15 18:31 / dck
Iron	ND	mg/L		0.02		E200.8	05/11/15 18:31 / dck
Lead	ND	mg/L		0.0003		E200.8	05/11/15 18:31 / dck
Magnesium	7	mg/L		1		E200.7	05/11/15 13:23 / sld
Manganese	0.001	mg/L		0.001		E200.8	05/11/15 18:31 / dck
Mercury	0.000011	mg/L		5E-06		E245.1	05/13/15 12:49 / rgk
Molybdenum	0.017	mg/L		0.005		E200.8	05/11/15 18:31 / dck
Nickel	ND	mg/L		0.002		E200.8	05/11/15 18:31 / dck
Potassium	3	mg/L		1		E200.7	05/11/15 13:23 / sld
Selenium	ND	mg/L		0.001		E200.8	05/11/15 18:31 / dck
Silver	ND	mg/L		0.0002		E200.8	05/11/15 18:31 / dck
Sodium	43	mg/L		1		E200.7	05/11/15 13:23 / sld
Uranium	0.0021	mg/L		0.0002		E200.8	05/11/15 18:31 / dck
Vanadium	ND	mg/L		0.1		E200.8	05/11/15 18:31 / dck
Zinc	0.008	mg/L		0.008		E200.8	05/11/15 18:31 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring 2nd Q 2015
Lab ID: H15050137-004
Client Sample ID: LYS-04

Report Date: 05/27/15
Collection Date: 05/07/15 16:20
DateReceived: 05/08/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	250	mg/L		4		A2320 B	05/14/15 13:35 / SRW
Bicarbonate as HCO3	290	mg/L		4		A2320 B	05/14/15 13:35 / SRW
Chloride	4	mg/L		1		E300.0	05/12/15 21:19 / SRW
Sulfate	484	mg/L		1		E300.0	05/12/15 21:19 / SRW
Hardness as CaCO3	408	mg/L		1		A2340 B	05/14/15 16:52 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	05/11/15 18:34 / dck
Antimony	ND	mg/L	D	0.002		E200.8	05/11/15 18:34 / dck
Arsenic	0.074	mg/L		0.001		E200.8	05/11/15 18:34 / dck
Barium	0.060	mg/L		0.003		E200.8	05/11/15 18:34 / dck
Beryllium	ND	mg/L		0.0008		E200.8	05/11/15 18:34 / dck
Boron	ND	mg/L		0.1		E200.7	05/11/15 13:26 / sld
Cadmium	0.00004	mg/L		0.00003		E200.8	05/11/15 18:34 / dck
Calcium	104	mg/L		1		E200.7	05/11/15 13:26 / sld
Chromium	ND	mg/L		0.01		E200.8	05/11/15 18:34 / dck
Cobalt	ND	mg/L		0.01		E200.8	05/11/15 18:34 / dck
Copper	0.007	mg/L		0.001		E200.8	05/11/15 18:34 / dck
Iron	ND	mg/L		0.02		E200.8	05/11/15 18:34 / dck
Lead	ND	mg/L		0.0003		E200.8	05/11/15 18:34 / dck
Magnesium	36	mg/L		1		E200.7	05/11/15 13:26 / sld
Manganese	ND	mg/L		0.001		E200.8	05/11/15 18:34 / dck
Mercury	5.5E-06	mg/L		5E-06		E245.1	05/13/15 12:52 / rgk
Molybdenum	ND	mg/L		0.005		E200.8	05/11/15 18:34 / dck
Nickel	ND	mg/L		0.002		E200.8	05/11/15 18:34 / dck
Potassium	12	mg/L		1		E200.7	05/11/15 13:26 / sld
Selenium	0.003	mg/L		0.001		E200.8	05/11/15 18:34 / dck
Silver	ND	mg/L		0.0002		E200.8	05/11/15 18:34 / dck
Sodium	156	mg/L		1		E200.7	05/11/15 13:26 / sld
Uranium	0.0274	mg/L		0.0002		E200.8	05/11/15 18:34 / dck
Vanadium	ND	mg/L		0.1		E200.8	05/11/15 18:34 / dck
Zinc	0.013	mg/L		0.008		E200.8	05/11/15 18:34 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring 2nd Q 2015
Lab ID: H15050137-005
Client Sample ID: LYS-05

Report Date: 05/27/15
Collection Date: 05/07/15 16:25
DateReceived: 05/08/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	260	mg/L		4		A2320 B	05/14/15 13:44 / SRW
Bicarbonate as HCO3	310	mg/L		4		A2320 B	05/14/15 13:44 / SRW
Chloride	5	mg/L		1		E300.0	05/12/15 21:30 / SRW
Sulfate	4220	mg/L		1		E300.0	05/14/15 00:14 / SRW
Hardness as CaCO3	1650	mg/L		1		A2340 B	05/14/15 16:52 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	05/11/15 18:37 / dck
Antimony	ND	mg/L	D	0.002		E200.8	05/11/15 18:37 / dck
Arsenic	0.018	mg/L		0.001		E200.8	05/11/15 18:37 / dck
Barium	0.015	mg/L		0.003		E200.8	05/11/15 18:37 / dck
Beryllium	ND	mg/L		0.0008		E200.8	05/11/15 18:37 / dck
Boron	2.1	mg/L		0.1		E200.7	05/11/15 13:30 / sld
Cadmium	0.00018	mg/L		0.00003		E200.8	05/11/15 18:37 / dck
Calcium	442	mg/L		1		E200.7	05/11/15 13:30 / sld
Chromium	ND	mg/L		0.01		E200.8	05/11/15 18:37 / dck
Cobalt	ND	mg/L		0.01		E200.8	05/11/15 18:37 / dck
Copper	0.010	mg/L		0.001		E200.8	05/11/15 18:37 / dck
Iron	ND	mg/L		0.02		E200.8	05/11/15 18:37 / dck
Lead	ND	mg/L		0.0003		E200.8	05/11/15 18:37 / dck
Magnesium	133	mg/L		1		E200.7	05/11/15 13:30 / sld
Manganese	ND	mg/L		0.001		E200.8	05/11/15 18:37 / dck
Mercury	0.000040	mg/L		5E-06		E245.1	05/13/15 12:56 / rgk
Molybdenum	0.026	mg/L		0.005		E200.8	05/11/15 18:37 / dck
Nickel	ND	mg/L		0.002		E200.8	05/11/15 18:37 / dck
Potassium	22	mg/L		1		E200.7	05/11/15 13:30 / sld
Selenium	0.009	mg/L		0.001		E200.8	05/11/15 18:37 / dck
Silver	ND	mg/L		0.0002		E200.8	05/11/15 18:37 / dck
Sodium	1110	mg/L		1		E200.7	05/11/15 13:30 / sld
Uranium	1.86	mg/L		0.0002		E200.8	05/11/15 18:37 / dck
Vanadium	ND	mg/L		0.1		E200.8	05/11/15 18:37 / dck
Zinc	0.014	mg/L		0.008		E200.8	05/11/15 18:37 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring 2nd Q 2015
Lab ID: H15050137-006
Client Sample ID: LYS-06

Report Date: 05/27/15
Collection Date: 05/07/15 18:30
DateReceived: 05/08/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	50	mg/L		4.0		A2320 B	05/12/15 18:22 / SRW
Bicarbonate as HCO3	60	mg/L		4.0		A2320 B	05/12/15 18:22 / SRW
Chloride	31	mg/L		1		E300.0	05/12/15 21:41 / SRW
Sulfate	1170	mg/L		1		E300.0	05/14/15 00:25 / SRW
Hardness as CaCO3	693	mg/L		1		A2340 B	05/11/15 13:34 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	05/11/15 18:40 / dck
Antimony	0.0005	mg/L		0.0005		E200.8	05/15/15 13:29 / dck
Arsenic	0.002	mg/L		0.001		E200.8	05/11/15 18:40 / dck
Barium	0.009	mg/L		0.003		E200.8	05/11/15 18:40 / dck
Beryllium	ND	mg/L		0.0008		E200.8	05/11/15 18:40 / dck
Boron	0.2	mg/L		0.1		E200.7	05/11/15 13:34 / sld
Cadmium	ND	mg/L		0.00003		E200.8	05/11/15 18:40 / dck
Calcium	216	mg/L		1		E200.7	05/11/15 13:34 / sld
Chromium	ND	mg/L		0.01		E200.8	05/11/15 18:40 / dck
Cobalt	ND	mg/L		0.01		E200.8	05/11/15 18:40 / dck
Copper	0.007	mg/L		0.001		E200.8	05/11/15 18:40 / dck
Iron	ND	mg/L		0.02		E200.8	05/11/15 18:40 / dck
Lead	ND	mg/L		0.0003		E200.8	05/11/15 18:40 / dck
Magnesium	37	mg/L		1		E200.7	05/11/15 13:34 / sld
Manganese	0.003	mg/L		0.001		E200.8	05/11/15 18:40 / dck
Mercury	9.1E-06	mg/L		5E-06		E245.1	05/13/15 13:07 / rgk
Molybdenum	0.008	mg/L		0.005		E200.8	05/11/15 18:40 / dck
Nickel	ND	mg/L		0.002		E200.8	05/11/15 18:40 / dck
Potassium	ND	mg/L		1		E200.8	05/11/15 18:40 / dck
Selenium	ND	mg/L		0.001		E200.8	05/11/15 18:40 / dck
Silver	ND	mg/L		0.0002		E200.8	05/11/15 18:40 / dck
Sodium	238	mg/L		1		E200.7	05/11/15 13:34 / sld
Uranium	0.0023	mg/L		0.0002		E200.8	05/11/15 18:40 / dck
Vanadium	ND	mg/L		0.1		E200.8	05/11/15 18:40 / dck
Zinc	0.028	mg/L		0.008		E200.8	05/11/15 18:40 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring 2nd Q 2015
Lab ID: H15050137-007
Client Sample ID: LYS-07

Report Date: 05/27/15
Collection Date: 05/07/15 16:45
DateReceived: 05/08/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Hardness as CaCO3	877	mg/L		1		A2340 B	05/14/15 16:52 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	05/11/15 18:53 / dck
Antimony	ND	mg/L	D	0.0008		E200.8	05/11/15 18:53 / dck
Arsenic	0.006	mg/L		0.001		E200.8	05/11/15 18:53 / dck
Barium	0.006	mg/L		0.003		E200.8	05/11/15 18:53 / dck
Beryllium	ND	mg/L		0.0008		E200.8	05/11/15 18:53 / dck
Boron	0.2	mg/L		0.1		E200.7	05/11/15 13:38 / sld
Cadmium	0.00007	mg/L		0.00003		E200.8	05/11/15 18:53 / dck
Calcium	245	mg/L		1		E200.7	05/11/15 13:38 / sld
Chromium	ND	mg/L		0.01		E200.8	05/11/15 18:53 / dck
Cobalt	ND	mg/L		0.01		E200.8	05/11/15 18:53 / dck
Copper	0.004	mg/L		0.001		E200.8	05/11/15 18:53 / dck
Iron	ND	mg/L		0.02		E200.8	05/11/15 18:53 / dck
Lead	ND	mg/L		0.0003		E200.8	05/11/15 18:53 / dck
Magnesium	64	mg/L		1		E200.7	05/11/15 13:38 / sld
Manganese	ND	mg/L		0.001		E200.8	05/11/15 18:53 / dck
Mercury	5.8E-06	mg/L		5E-06		E245.1	05/13/15 13:19 / rgk
Molybdenum	0.106	mg/L		0.005		E200.8	05/11/15 18:53 / dck
Nickel	ND	mg/L		0.002		E200.8	05/11/15 18:53 / dck
Potassium	9	mg/L		1		E200.7	05/11/15 13:38 / sld
Selenium	0.002	mg/L		0.001		E200.8	05/11/15 18:53 / dck
Silver	ND	mg/L		0.0002		E200.8	05/11/15 18:53 / dck
Sodium	701	mg/L		1		E200.7	05/11/15 13:38 / sld
Uranium	0.207	mg/L		0.0002		E200.8	05/11/15 18:53 / dck
Vanadium	ND	mg/L		0.1		E200.8	05/11/15 18:53 / dck
Zinc	ND	mg/L		0.008		E200.8	05/11/15 18:53 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring 2nd Q 2015
Lab ID: H15050137-008
Client Sample ID: LYS-08

Report Date: 05/27/15
Collection Date: 05/07/15 17:30
DateReceived: 05/08/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	340	mg/L		4.0		A2320 B	05/12/15 18:27 / SRW
Bicarbonate as HCO3	410	mg/L		4.0		A2320 B	05/12/15 18:27 / SRW
Chloride	62	mg/L		1		E300.0	05/12/15 21:52 / SRW
Sulfate	800	mg/L		1		E300.0	05/14/15 00:36 / SRW
Hardness as CaCO3	904	mg/L		1		A2340 B	05/11/15 13:42 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	05/11/15 18:56 / dck
Antimony	ND	mg/L		0.0005		E200.8	05/15/15 13:32 / dck
Arsenic	0.005	mg/L		0.001		E200.8	05/11/15 18:56 / dck
Barium	0.026	mg/L		0.003		E200.8	05/11/15 18:56 / dck
Beryllium	ND	mg/L		0.0008		E200.8	05/11/15 18:56 / dck
Boron	0.1	mg/L		0.1		E200.7	05/11/15 13:42 / sld
Cadmium	0.00021	mg/L		0.00003		E200.8	05/11/15 18:56 / dck
Calcium	196	mg/L		1		E200.7	05/11/15 13:42 / sld
Chromium	ND	mg/L		0.01		E200.8	05/11/15 18:56 / dck
Cobalt	ND	mg/L		0.01		E200.8	05/11/15 18:56 / dck
Copper	0.001	mg/L		0.001		E200.8	05/11/15 18:56 / dck
Iron	ND	mg/L		0.02		E200.8	05/11/15 18:56 / dck
Lead	ND	mg/L		0.0003		E200.8	05/11/15 18:56 / dck
Magnesium	101	mg/L		1		E200.7	05/11/15 13:42 / sld
Manganese	0.007	mg/L		0.001		E200.8	05/11/15 18:56 / dck
Mercury	6.4E-06	mg/L		5E-06		E245.1	05/13/15 13:23 / rgk
Molybdenum	0.007	mg/L		0.005		E200.8	05/11/15 18:56 / dck
Nickel	ND	mg/L		0.002		E200.8	05/11/15 18:56 / dck
Potassium	6	mg/L		1		E200.7	05/11/15 13:42 / sld
Selenium	0.012	mg/L		0.001		E200.8	05/11/15 18:56 / dck
Silver	ND	mg/L		0.0002		E200.8	05/11/15 18:56 / dck
Sodium	126	mg/L		1		E200.7	05/11/15 13:42 / sld
Uranium	0.128	mg/L		0.0002		E200.8	05/11/15 18:56 / dck
Vanadium	ND	mg/L		0.1		E200.8	05/11/15 18:56 / dck
Zinc	ND	mg/L		0.008		E200.8	05/11/15 18:56 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring 2nd Q 2015
Lab ID: H15050137-009
Client Sample ID: MW-2A

Report Date: 05/27/15
Collection Date: 05/07/15 17:20
DateReceived: 05/08/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	120	mg/L		4.0		A2320 B	05/12/15 18:34 / SRW
Bicarbonate as HCO3	150	mg/L		4.0		A2320 B	05/12/15 18:34 / SRW
Chloride	4	mg/L		1		E300.0	05/12/15 22:03 / SRW
Sulfate	215	mg/L		1		E300.0	05/12/15 22:03 / SRW
Hardness as CaCO3	270	mg/L		1		A2340 B	05/11/15 13:46 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	05/11/15 18:59 / dck
Antimony	ND	mg/L		0.0005		E200.8	05/15/15 13:35 / dck
Arsenic	0.011	mg/L		0.001		E200.8	05/11/15 18:59 / dck
Barium	0.014	mg/L		0.003		E200.8	05/11/15 18:59 / dck
Beryllium	ND	mg/L		0.0008		E200.8	05/11/15 18:59 / dck
Boron	ND	mg/L		0.1		E200.7	05/11/15 13:46 / sld
Cadmium	ND	mg/L		0.00003		E200.8	05/11/15 18:59 / dck
Calcium	86	mg/L		1		E200.7	05/11/15 13:46 / sld
Chromium	ND	mg/L		0.01		E200.8	05/11/15 18:59 / dck
Cobalt	ND	mg/L		0.01		E200.8	05/11/15 18:59 / dck
Copper	ND	mg/L		0.001		E200.8	05/11/15 18:59 / dck
Iron	ND	mg/L		0.02		E200.8	05/11/15 18:59 / dck
Lead	ND	mg/L		0.0003		E200.8	05/11/15 18:59 / dck
Magnesium	13	mg/L		1		E200.7	05/11/15 13:46 / sld
Manganese	ND	mg/L		0.001		E200.8	05/11/15 18:59 / dck
Mercury	6.8E-06	mg/L		5E-06		E245.1	05/13/15 13:27 / rgk
Molybdenum	0.009	mg/L		0.005		E200.8	05/11/15 18:59 / dck
Nickel	ND	mg/L		0.002		E200.8	05/11/15 18:59 / dck
Potassium	3	mg/L		1		E200.7	05/11/15 13:46 / sld
Selenium	0.010	mg/L		0.001		E200.8	05/11/15 18:59 / dck
Silver	ND	mg/L		0.0002		E200.8	05/11/15 18:59 / dck
Sodium	26	mg/L		1		E200.7	05/11/15 13:46 / sld
Uranium	0.0426	mg/L		0.0002		E200.8	05/11/15 18:59 / dck
Vanadium	ND	mg/L		0.1		E200.8	05/11/15 18:59 / dck
Zinc	ND	mg/L		0.008		E200.8	05/11/15 18:59 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring 2nd Q 2015
Lab ID: H15050137-010
Client Sample ID: MW-2B

Report Date: 05/27/15
Collection Date: 05/07/15 15:43
DateReceived: 05/08/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	82	mg/L		4.0		A2320 B	05/12/15 18:40 / SRW
Bicarbonate as HCO3	99	mg/L		4.0		A2320 B	05/12/15 18:40 / SRW
Chloride	21	mg/L		1		E300.0	05/12/15 23:10 / SRW
Sulfate	141	mg/L		1		E300.0	05/12/15 23:10 / SRW
Hardness as CaCO3	203	mg/L		1		A2340 B	05/11/15 14:08 / abb
METALS, DISSOLVED							
Aluminum	0.068	mg/L		0.009		E200.8	05/11/15 19:02 / dck
Antimony	ND	mg/L		0.0005		E200.8	05/15/15 13:39 / dck
Arsenic	0.010	mg/L		0.001		E200.8	05/11/15 19:02 / dck
Barium	0.033	mg/L		0.003		E200.8	05/11/15 19:02 / dck
Beryllium	ND	mg/L		0.0008		E200.8	05/11/15 19:02 / dck
Boron	ND	mg/L		0.1		E200.7	05/11/15 14:08 / sld
Cadmium	ND	mg/L		0.00003		E200.8	05/11/15 19:02 / dck
Calcium	57	mg/L		1		E200.7	05/11/15 14:08 / sld
Chromium	ND	mg/L		0.01		E200.8	05/11/15 19:02 / dck
Cobalt	ND	mg/L		0.01		E200.8	05/11/15 19:02 / dck
Copper	0.001	mg/L		0.001		E200.8	05/11/15 19:02 / dck
Iron	0.05	mg/L		0.02		E200.8	05/11/15 19:02 / dck
Lead	ND	mg/L		0.0003		E200.8	05/11/15 19:02 / dck
Magnesium	15	mg/L		1		E200.7	05/11/15 14:08 / sld
Manganese	0.012	mg/L		0.001		E200.8	05/11/15 19:02 / dck
Mercury	5.1E-06	mg/L		5E-06		E245.1	05/13/15 13:30 / rgk
Molybdenum	ND	mg/L		0.005		E200.8	05/11/15 19:02 / dck
Nickel	ND	mg/L		0.002		E200.8	05/11/15 19:02 / dck
Potassium	3	mg/L		1		E200.7	05/11/15 14:08 / sld
Selenium	0.002	mg/L		0.001		E200.8	05/11/15 19:02 / dck
Silver	ND	mg/L		0.0002		E200.8	05/11/15 19:02 / dck
Sodium	23	mg/L		1		E200.7	05/11/15 14:08 / sld
Uranium	0.0048	mg/L		0.0002		E200.8	05/11/15 19:02 / dck
Vanadium	ND	mg/L		0.1		E200.8	05/11/15 19:02 / dck
Zinc	ND	mg/L		0.008		E200.8	05/11/15 19:02 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring 2nd Q 2015
Lab ID: H15050137-011
Client Sample ID: MW-2C

Report Date: 05/27/15
Collection Date: 05/07/15 14:50
DateReceived: 05/08/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	100	mg/L		4.0		A2320 B	05/12/15 18:46 / SRW
Bicarbonate as HCO3	130	mg/L		4.0		A2320 B	05/12/15 18:46 / SRW
Chloride	22	mg/L		1		E300.0	05/12/15 23:21 / SRW
Sulfate	171	mg/L		1		E300.0	05/12/15 23:21 / SRW
Hardness as CaCO3	230	mg/L		1		A2340 B	05/12/15 12:38 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	05/21/15 12:07 / dck
Antimony	ND	mg/L		0.0005		E200.8	05/11/15 19:06 / dck
Arsenic	0.006	mg/L		0.001		E200.8	05/11/15 19:06 / dck
Barium	0.020	mg/L		0.003		E200.8	05/11/15 19:06 / dck
Beryllium	ND	mg/L		0.0008		E200.8	05/11/15 19:06 / dck
Boron	ND	mg/L		0.1		E200.7	05/11/15 14:12 / sld
Cadmium	ND	mg/L		0.00003		E200.8	05/11/15 19:06 / dck
Calcium	67	mg/L		1		E200.7	05/11/15 14:12 / sld
Chromium	ND	mg/L		0.01		E200.8	05/11/15 19:06 / dck
Cobalt	ND	mg/L		0.01		E200.8	05/11/15 19:06 / dck
Copper	ND	mg/L		0.001		E200.8	05/11/15 19:06 / dck
Iron	0.12	mg/L		0.02		E200.8	05/11/15 19:06 / dck
Lead	ND	mg/L		0.0003		E200.8	05/11/15 19:06 / dck
Magnesium	15	mg/L		1		E200.7	05/11/15 14:12 / sld
Manganese	ND	mg/L		0.001		E200.8	05/21/15 12:07 / dck
Mercury	5.0E-06	mg/L		5E-06		E245.1	05/13/15 13:34 / rgk
Molybdenum	ND	mg/L		0.005		E200.8	05/11/15 19:06 / dck
Nickel	ND	mg/L		0.002		E200.8	05/11/15 19:06 / dck
Potassium	3	mg/L		1		E200.7	05/11/15 14:12 / sld
Selenium	0.002	mg/L		0.001		E200.8	05/11/15 19:06 / dck
Silver	ND	mg/L		0.0002		E200.8	05/11/15 19:06 / dck
Sodium	32	mg/L		1		E200.7	05/11/15 14:12 / sld
Uranium	0.0088	mg/L		0.0002		E200.8	05/11/15 19:06 / dck
Vanadium	ND	mg/L		0.1		E200.8	05/11/15 19:06 / dck
Zinc	ND	mg/L		0.008		E200.8	05/11/15 19:06 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring 2nd Q 2015
Lab ID: H15050137-012
Client Sample ID: Duplicate 1 GW-1056

Report Date: 05/27/15
Collection Date: 05/07/15 13:30
DateReceived: 05/08/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	120	mg/L		4.0		A2320 B	05/12/15 18:53 / SRW
Bicarbonate as HCO3	140	mg/L		4.0		A2320 B	05/12/15 18:53 / SRW
Chloride	17	mg/L		1		E300.0	05/12/15 23:32 / SRW
Sulfate	178	mg/L		1		E300.0	05/12/15 23:32 / SRW
Hardness as CaCO3	242	mg/L		1		A2340 B	05/12/15 12:38 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	05/21/15 12:20 / dck
Antimony	ND	mg/L		0.0005		E200.8	05/11/15 19:09 / dck
Arsenic	0.007	mg/L		0.001		E200.8	05/11/15 19:09 / dck
Barium	0.035	mg/L		0.003		E200.8	05/11/15 19:09 / dck
Beryllium	ND	mg/L		0.0008		E200.8	05/11/15 19:09 / dck
Boron	ND	mg/L		0.1		E200.7	05/11/15 14:16 / sld
Cadmium	ND	mg/L		0.00003		E200.8	05/11/15 19:09 / dck
Calcium	72	mg/L		1		E200.7	05/11/15 14:16 / sld
Chromium	ND	mg/L		0.01		E200.8	05/11/15 19:09 / dck
Cobalt	ND	mg/L		0.01		E200.8	05/11/15 19:09 / dck
Copper	ND	mg/L		0.001		E200.8	05/21/15 12:20 / dck
Iron	ND	mg/L		0.02		E200.8	05/21/15 12:20 / dck
Lead	ND	mg/L		0.0003		E200.8	05/11/15 19:09 / dck
Magnesium	15	mg/L		1		E200.7	05/11/15 14:16 / sld
Manganese	ND	mg/L		0.001		E200.8	05/21/15 12:20 / dck
Mercury	6.7E-06	mg/L		5E-06		E245.1	05/13/15 13:38 / rgk
Molybdenum	0.006	mg/L		0.005		E200.8	05/11/15 19:09 / dck
Nickel	ND	mg/L		0.002		E200.8	05/11/15 19:09 / dck
Potassium	3	mg/L		1		E200.7	05/11/15 14:16 / sld
Selenium	0.004	mg/L		0.001		E200.8	05/11/15 19:09 / dck
Silver	ND	mg/L		0.0002		E200.8	05/11/15 19:09 / dck
Sodium	27	mg/L		1		E200.7	05/11/15 14:16 / sld
Uranium	0.0316	mg/L		0.0002		E200.8	05/11/15 19:09 / dck
Vanadium	ND	mg/L		0.1		E200.8	05/11/15 19:09 / dck
Zinc	ND	mg/L		0.008		E200.8	05/11/15 19:09 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring 2nd Q 2015
Lab ID: H15050137-013
Client Sample ID: 1GW-1056

Report Date: 05/27/15
Collection Date: 05/07/15 13:30
DateReceived: 05/08/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	120	mg/L		4.0		A2320 B	05/12/15 19:16 / SRW
Bicarbonate as HCO3	140	mg/L		4.0		A2320 B	05/12/15 19:16 / SRW
Chloride	18	mg/L		1		E300.0	05/12/15 23:43 / SRW
Sulfate	175	mg/L		1		E300.0	05/12/15 23:43 / SRW
Hardness as CaCO3	242	mg/L		1		A2340 B	05/11/15 14:20 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	05/26/15 15:16 / dck
Antimony	ND	mg/L		0.0005		E200.8	05/15/15 13:42 / dck
Arsenic	0.007	mg/L		0.001		E200.8	05/11/15 19:22 / dck
Barium	0.030	mg/L		0.003		E200.8	05/11/15 19:22 / dck
Beryllium	ND	mg/L		0.0008		E200.8	05/11/15 19:22 / dck
Boron	ND	mg/L		0.1		E200.7	05/11/15 14:20 / sld
Cadmium	ND	mg/L		0.00003		E200.8	05/11/15 19:22 / dck
Calcium	72	mg/L		1		E200.7	05/11/15 14:20 / sld
Chromium	ND	mg/L		0.01		E200.8	05/11/15 19:22 / dck
Cobalt	ND	mg/L		0.01		E200.8	05/11/15 19:22 / dck
Copper	ND	mg/L		0.001		E200.8	05/11/15 19:22 / dck
Iron	ND	mg/L		0.02		E200.8	05/15/15 13:42 / dck
Lead	ND	mg/L		0.0003		E200.8	05/11/15 19:22 / dck
Magnesium	15	mg/L		1		E200.7	05/11/15 14:20 / sld
Manganese	ND	mg/L		0.001		E200.8	05/26/15 15:16 / dck
Mercury	7.3E-06	mg/L		5E-06		E245.1	05/13/15 13:42 / rgk
Molybdenum	0.005	mg/L		0.005		E200.8	05/11/15 19:22 / dck
Nickel	ND	mg/L		0.002		E200.8	05/11/15 19:22 / dck
Potassium	3	mg/L		1		E200.7	05/11/15 14:20 / sld
Selenium	0.004	mg/L		0.001		E200.8	05/11/15 19:22 / dck
Silver	ND	mg/L		0.0002		E200.8	05/11/15 19:22 / dck
Sodium	27	mg/L		1		E200.7	05/11/15 14:20 / sld
Uranium	0.0315	mg/L		0.0002		E200.8	05/11/15 19:22 / dck
Vanadium	ND	mg/L		0.1		E200.8	05/11/15 19:22 / dck
Zinc	ND	mg/L		0.008		E200.8	05/11/15 19:22 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring 2nd Q 2015
Lab ID: H15050137-014
Client Sample ID: Field Blank MW-2C

Report Date: 05/27/15
Collection Date: 05/07/15 13:10
DateReceived: 05/08/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	ND	mg/L		4.0		A2320 B	05/12/15 19:31 / SRW
Bicarbonate as HCO3	ND	mg/L		4.0		A2320 B	05/12/15 19:31 / SRW
Chloride	ND	mg/L		1		E300.0	05/12/15 23:55 / SRW
Sulfate	ND	mg/L		1		E300.0	05/12/15 23:55 / SRW
Hardness as CaCO3	ND	mg/L		1		A2340 B	05/18/15 09:34 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	05/11/15 19:25 / dck
Antimony	ND	mg/L		0.0005		E200.8	05/15/15 13:45 / dck
Arsenic	ND	mg/L		0.001		E200.8	05/11/15 19:25 / dck
Barium	ND	mg/L		0.003		E200.8	05/11/15 19:25 / dck
Beryllium	ND	mg/L		0.0008		E200.8	05/11/15 19:25 / dck
Boron	ND	mg/L		0.1		E200.7	05/11/15 14:23 / sld
Cadmium	ND	mg/L		0.00003		E200.8	05/11/15 19:25 / dck
Calcium	ND	mg/L		1		E200.7	05/11/15 14:23 / sld
Chromium	ND	mg/L		0.01		E200.8	05/11/15 19:25 / dck
Cobalt	ND	mg/L		0.01		E200.8	05/11/15 19:25 / dck
Copper	ND	mg/L		0.001		E200.8	05/11/15 19:25 / dck
Iron	ND	mg/L		0.02		E200.8	05/11/15 19:25 / dck
Lead	ND	mg/L		0.0003		E200.8	05/11/15 19:25 / dck
Magnesium	ND	mg/L		1		E200.7	05/11/15 14:23 / sld
Manganese	ND	mg/L		0.001		E200.8	05/11/15 19:25 / dck
Mercury	ND	mg/L		5E-06		E245.1	05/13/15 13:46 / rgk
Molybdenum	ND	mg/L		0.005		E200.8	05/11/15 19:25 / dck
Nickel	ND	mg/L		0.002		E200.8	05/11/15 19:25 / dck
Potassium	ND	mg/L		1		E200.7	05/11/15 14:23 / sld
Selenium	ND	mg/L		0.001		E200.8	05/11/15 19:25 / dck
Silver	ND	mg/L		0.0002		E200.8	05/11/15 19:25 / dck
Sodium	ND	mg/L		1		E200.7	05/11/15 14:23 / sld
Uranium	ND	mg/L		0.0002		E200.8	05/11/15 19:25 / dck
Vanadium	ND	mg/L		0.1		E200.8	05/11/15 19:25 / dck
Zinc	ND	mg/L		0.008		E200.8	05/11/15 19:25 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring 2nd Q 2015
Lab ID: H15050137-015
Client Sample ID: LYP-07

Report Date: 05/27/15
Collection Date: 05/07/15 13:10
DateReceived: 05/08/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	170	mg/L		4.0		A2320 B	05/12/15 19:35 / SRW
Bicarbonate as HCO3	200	mg/L		4.0		A2320 B	05/12/15 19:35 / SRW
Chloride	21	mg/L		1		E300.0	05/13/15 00:06 / SRW
Sulfate	138	mg/L		1		E300.0	05/13/15 00:06 / SRW
Hardness as CaCO3	258	mg/L		1		A2340 B	05/11/15 14:27 / abb
METALS, DISSOLVED							
Aluminum	0.014	mg/L		0.009		E200.8	05/11/15 19:28 / dck
Antimony	0.0005	mg/L		0.0005		E200.8	05/15/15 13:48 / dck
Arsenic	0.001	mg/L		0.001		E200.8	05/11/15 19:28 / dck
Barium	0.055	mg/L		0.003		E200.8	05/11/15 19:28 / dck
Beryllium	ND	mg/L		0.0008		E200.8	05/11/15 19:28 / dck
Boron	ND	mg/L		0.1		E200.7	05/11/15 14:27 / sld
Cadmium	ND	mg/L		0.00003		E200.8	05/11/15 19:28 / dck
Calcium	78	mg/L		1		E200.7	05/11/15 14:27 / sld
Chromium	ND	mg/L		0.01		E200.8	05/11/15 19:28 / dck
Cobalt	ND	mg/L		0.01		E200.8	05/11/15 19:28 / dck
Copper	ND	mg/L		0.001		E200.8	05/11/15 19:28 / dck
Iron	0.11	mg/L		0.02		E200.8	05/11/15 19:28 / dck
Lead	ND	mg/L		0.0003		E200.8	05/11/15 19:28 / dck
Magnesium	15	mg/L		1		E200.7	05/11/15 14:27 / sld
Manganese	0.062	mg/L		0.001		E200.8	05/11/15 19:28 / dck
Mercury	ND	mg/L		5E-06		E245.1	05/13/15 13:49 / rgk
Molybdenum	0.010	mg/L		0.005		E200.8	05/11/15 19:28 / dck
Nickel	0.004	mg/L		0.002		E200.8	05/11/15 19:28 / dck
Potassium	4	mg/L		1		E200.7	05/11/15 14:27 / sld
Selenium	0.002	mg/L		0.001		E200.8	05/11/15 19:28 / dck
Silver	ND	mg/L		0.0002		E200.8	05/11/15 19:28 / dck
Sodium	31	mg/L		1		E200.7	05/11/15 14:27 / sld
Uranium	0.0550	mg/L		0.0002		E200.8	05/11/15 19:28 / dck
Vanadium	ND	mg/L		0.1		E200.8	05/11/15 19:28 / dck
Zinc	0.014	mg/L		0.008		E200.8	05/11/15 19:28 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring 2nd Q 2015
Lab ID: H15050137-016
Client Sample ID: MW-2D

Report Date: 05/27/15
Collection Date: 05/07/15 12:40
DateReceived: 05/08/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	150	mg/L		4.0		A2320 B	05/12/15 19:41 / SRW
Bicarbonate as HCO3	190	mg/L		4.0		A2320 B	05/12/15 19:41 / SRW
Chloride	24	mg/L		1		E300.0	05/13/15 00:17 / SRW
Sulfate	197	mg/L		1		E300.0	05/13/15 00:17 / SRW
Hardness as CaCO3	308	mg/L		1		A2340 B	05/19/15 16:49 / sld
METALS, DISSOLVED							
Aluminum	0.034	mg/L		0.009		E200.8	05/19/15 12:14 / dck
Antimony	0.0010	mg/L		0.0005		E200.8	05/18/15 13:04 / dck
Arsenic	0.008	mg/L		0.001		E200.8	05/19/15 12:14 / dck
Barium	0.041	mg/L		0.003		E200.8	05/19/15 12:14 / dck
Beryllium	ND	mg/L		0.0008		E200.8	05/18/15 13:04 / dck
Boron	ND	mg/L		0.1		E200.7	05/18/15 10:03 / sld
Cadmium	ND	mg/L		0.00003		E200.8	05/19/15 12:14 / dck
Calcium	90	mg/L		1		E200.8	05/18/15 13:04 / dck
Chromium	ND	mg/L		0.01		E200.8	05/18/15 13:04 / dck
Cobalt	ND	mg/L		0.01		E200.8	05/18/15 13:04 / dck
Copper	ND	mg/L		0.001		E200.8	05/19/15 12:14 / dck
Iron	0.03	mg/L		0.02		E200.8	05/19/15 12:14 / dck
Lead	ND	mg/L		0.0003		E200.8	05/19/15 12:14 / dck
Magnesium	20	mg/L		1		E200.7	05/18/15 10:03 / sld
Manganese	0.001	mg/L		0.001		E200.8	05/19/15 12:14 / dck
Mercury	0.000012	mg/L		5E-06		E245.1	05/13/15 16:06 / rgk
Molybdenum	0.005	mg/L		0.005		E200.8	05/18/15 13:04 / dck
Nickel	ND	mg/L		0.002		E200.8	05/18/15 13:04 / dck
Potassium	4	mg/L		1		E200.8	05/18/15 13:04 / dck
Selenium	0.004	mg/L		0.001		E200.8	05/18/15 13:04 / dck
Silver	0.0003	mg/L		0.0002		E200.8	05/18/15 13:04 / dck
Sodium	28	mg/L		1		E200.7	05/18/15 10:03 / sld
Uranium	0.0565	mg/L		0.0002		E200.8	05/18/15 13:04 / dck
Vanadium	ND	mg/L		0.1		E200.8	05/19/15 12:14 / dck
Zinc	ND	mg/L		0.008		E200.8	05/19/15 12:14 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R106059
Lab ID: MB		Method Blank				Run: PHSC_101-H_150512A				05/12/15 15:50
Alkalinity, Total as CaCO3		2	mg/L	0.9						
Lab ID: LCS		Laboratory Control Sample				Run: PHSC_101-H_150512A				05/12/15 15:54
Alkalinity, Total as CaCO3		600	mg/L	4.0	100	90	110			
Lab ID: H15050131-002ADUP	2	Sample Duplicate				Run: PHSC_101-H_150512A				05/12/15 16:22
Alkalinity, Total as CaCO3		1200	mg/L	4.0				2.3	10	
Bicarbonate as HCO3		1400	mg/L	4.0				2.3	10	
Lab ID: H15050137-012BMS		Sample Matrix Sp ke				Run: PHSC_101-H_150512A				05/12/15 18:58
Alkalinity, Total as CaCO3		670	mg/L	4.0	92	80	120			
Lab ID: H15050137-013BDUP	2	Sample Duplicate				Run: PHSC_101-H_150512A				05/12/15 19:24
Alkalinity, Total as CaCO3		120	mg/L	4.0				0.4	10	
Bicarbonate as HCO3		140	mg/L	4.0				0.4	10	
Method: A2320 B										Batch: R106123
Lab ID: MB		Method Blank				Run: PHSC_101-H_150514A				05/14/15 11:31
Alkalinity, Total as CaCO3		2	mg/L	0.7						
Lab ID: LCS		Laboratory Control Sample				Run: PHSC_101-H_150514A				05/14/15 11:35
Alkalinity, Total as CaCO3		590	mg/L	4.0	98	90	110			
Lab ID: H15050195-001ADUP	2	Sample Duplicate				Run: PHSC_101-H_150514A				05/14/15 14:36
Alkalinity, Total as CaCO3		120	mg/L	4.0				1.3	10	
Bicarbonate as HCO3		140	mg/L	4.0				1.3	10	
Lab ID: H15050195-003AMS		Sample Matrix Sp ke				Run: PHSC_101-H_150514A				05/14/15 15:05
Alkalinity, Total as CaCO3		680	mg/L	4.0	89	80	120			
Lab ID: H15050195-004ADUP	2	Sample Duplicate				Run: PHSC_101-H_150514A				05/14/15 15:26
Alkalinity, Total as CaCO3		150	mg/L	4.0				0.4	10	
Bicarbonate as HCO3		180	mg/L	4.0				0.4	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.7**									Analytical Run: ICP2-HE_150511A	
Lab ID:	**ICV**	5	Initial Calibration Verification Standard								05/11/15 11:41
Boron			0.802	mg/L	0.10	100	95	105			
Calcium			39.4	mg/L	1.0	98	95	105			
Magnesium			39.6	mg/L	1.0	99	95	105			
Potassium			39.0	mg/L	1.0	98	95	105			
Sodium			39.4	mg/L	1.0	98	95	105			
Lab ID:	**CCV-1**	5	Continuing Calibration Verification Standard								05/11/15 11:45
Boron			2.46	mg/L	0.10	98	95	105			
Calcium			24.6	mg/L	1.0	98	95	105			
Magnesium			24.4	mg/L	1.0	98	95	105			
Potassium			24.3	mg/L	1.0	97	95	105			
Sodium			24.6	mg/L	1.0	98	95	105			
Lab ID:	**ICSA**	5	Interference Check Sample A								05/11/15 11:56
Boron			0.000660	mg/L	0.10		0	0			
Calcium			457	mg/L	1.0	91	80	120			
Magnesium			507	mg/L	1.0	101	80	120			
Potassium			-0.133	mg/L	1.0		0	0			
Sodium			0.0144	mg/L	1.0		0	0			
Lab ID:	**ICSAB**	5	Interference Check Sample AB								05/11/15 12:00
Boron			0.981	mg/L	0.10	98	80	120			
Calcium			449	mg/L	1.0	90	80	120			
Magnesium			506	mg/L	1.0	101	80	120			
Potassium			20.2	mg/L	1.0	101	80	120			
Sodium			20.5	mg/L	1.0	102	80	120			
Lab ID:	**CCV**	5	Continuing Calibration Verification Standard								05/11/15 12:30
Boron			2.50	mg/L	0.10	100	90	110			
Calcium			24.1	mg/L	1.0	96	90	110			
Magnesium			24.1	mg/L	1.0	96	90	110			
Potassium			24.5	mg/L	1.0	98	90	110			
Sodium			24.9	mg/L	1.0	100	90	110			
Lab ID:	**CCV**	5	Continuing Calibration Verification Standard								05/11/15 13:15
Boron			2.44	mg/L	0.10	98	90	110			
Calcium			24.3	mg/L	1.0	97	90	110			
Magnesium			24.5	mg/L	1.0	98	90	110			
Potassium			24.4	mg/L	1.0	98	90	110			
Sodium			24.8	mg/L	1.0	99	90	110			
Lab ID:	**CCV**	5	Continuing Calibration Verification Standard								05/11/15 14:01
Boron			2.44	mg/L	0.10	98	90	110			
Calcium			23.7	mg/L	1.0	95	90	110			
Magnesium			24.0	mg/L	1.0	96	90	110			
Potassium			24.5	mg/L	1.0	98	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.7**									Analytical Run: ICP2-HE_150511A	
Lab ID:	**CCV**	5	Continuing Calibration Verification Standard							05/11/15 14:01	
Sodium			25.0	mg/L	1.0	100	90	110			
Method:	**E200.7**									Batch: R106033	
Lab ID:	**ICB**	5	Method Blank				Run: ICP2-HE_150511A			05/11/15 12:08	
Boron			ND	mg/L	0.003						
Calcium			0.03	mg/L	0.03						
Magnesium			0.008	mg/L	0.005						
Potassium			ND	mg/L	0.07						
Sodium			ND	mg/L	0.02						
Lab ID:	**LFB**	5	Laboratory Fortified Blank				Run: ICP2-HE_150511A			05/11/15 12:12	
Boron			1.02	mg/L	0.10	102	85	115			
Calcium			49.4	mg/L	1.0	99	85	115			
Magnesium			50.3	mg/L	1.0	101	85	115			
Potassium			49.6	mg/L	1.0	99	85	115			
Sodium			50.2	mg/L	1.0	100	85	115			
Lab ID:	**H15050138-001CMS2**	5	Sample Matrix Sp ke				Run: ICP2-HE_150511A			05/11/15 12:53	
Boron			0.981	mg/L	0.050	98	70	130			
Calcium			67.4	mg/L	1.0	96	70	130			
Magnesium			53.8	mg/L	1.0	99	70	130			
Potassium			52.2	mg/L	1.0	103	70	130			
Sodium			58.5	mg/L	1.0	104	70	130			
Lab ID:	**H15050138-001CMSD**	5	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_150511A			05/11/15 12:56	
Boron			1.00	mg/L	0.050	100	70	130	1.9	20	
Calcium			68.4	mg/L	1.0	98	70	130	1.5	20	
Magnesium			54.8	mg/L	1.0	101	70	130	1.7	20	
Potassium			51.7	mg/L	1.0	102	70	130	0.8	20	
Sodium			57.8	mg/L	1.0	103	70	130	1.1	20	
Lab ID:	**H15050137-009AMS2**	5	Sample Matrix Sp ke				Run: ICP2-HE_150511A			05/11/15 13:53	
Boron			1.02	mg/L	0.050	98	70	130			
Calcium			134	mg/L	1.0	95	70	130			
Magnesium			62.2	mg/L	1.0	98	70	130			
Potassium			54.3	mg/L	1.0	102	70	130			
Sodium			78.7	mg/L	1.0	104	70	130			
Lab ID:	**H15050137-009AMSD**	5	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_150511A			05/11/15 13:57	
Boron			1.03	mg/L	0.050	100	70	130	1.2	20	
Calcium			135	mg/L	1.0	97	70	130	0.9	20	
Magnesium			62.7	mg/L	1.0	99	70	130	0.8	20	
Potassium			54.9	mg/L	1.0	103	70	130	1.2	20	
Sodium			79.6	mg/L	1.0	106	70	130	1.1	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R106033
Lab ID: H15050137-015AMS2	5	Sample Matrix Sp ke				Run: ICP2-HE_150511A			05/11/15 14:35	
Boron		1.03	mg/L	0.050	98	70	130			
Calcium		122	mg/L	1.0	88	70	130			
Magnesium		63.6	mg/L	1.0	97	70	130			
Potassium		53.8	mg/L	1.0	99	70	130			
Sodium		80.9	mg/L	1.0	99	70	130			
Lab ID: H15050137-015AMSD	5	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_150511A			05/11/15 14:38	
Boron		1.04	mg/L	0.050	99	70	130	0.8	20	
Calcium		122	mg/L	1.0	88	70	130	0.0	20	
Magnesium		63.8	mg/L	1.0	97	70	130	0.2	20	
Potassium		54.7	mg/L	1.0	101	70	130	1.5	20	
Sodium		81.9	mg/L	1.0	101	70	130	1.2	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.7**									Analytical Run: ICP2-HE_150518A	
Lab ID:	**ICV**	3	Initial Calibration Verification Standard							05/18/15 08:32	
Boron			0.802	mg/L	0.10	100	95	105			
Magnesium			39.9	mg/L	1.0	100	95	105			
Sodium			39.7	mg/L	1.0	99	95	105			
Lab ID:	**CCV-1**	3	Continuing Calibration Verification Standard							05/18/15 08:35	
Boron			2.47	mg/L	0.10	99	95	105			
Magnesium			24.6	mg/L	1.0	98	95	105			
Sodium			24.8	mg/L	1.0	99	95	105			
Lab ID:	**ICSA**	3	Interference Check Sample A							05/18/15 08:46	
Boron			-0.00656	mg/L	0.10		0	0			
Magnesium			529	mg/L	1.0	106	80	120			
Sodium			0.0168	mg/L	1.0		0	0			
Lab ID:	**ICSAB**	3	Interference Check Sample AB							05/18/15 08:50	
Boron			0.987	mg/L	0.10	99	80	120			
Magnesium			515	mg/L	1.0	103	80	120			
Sodium			20.4	mg/L	1.0	102	80	120			
Lab ID:	**CCV**	3	Continuing Calibration Verification Standard							05/18/15 09:21	
Boron			2.48	mg/L	0.10	99	90	110			
Magnesium			24.9	mg/L	1.0	100	90	110			
Sodium			24.8	mg/L	1.0	99	90	110			
Method:	**E200.7**									Batch: 28898	
Lab ID:	**MB-28898**	3	Method Blank				Run: ICP2-HE_150518A			05/18/15 09:51	
Boron			ND	mg/L	0.002						
Magnesium			ND	mg/L	0.01						
Sodium			0.02	mg/L	0.01						
Lab ID:	**LCS-28898**	3	Laboratory Control Sample				Run: ICP2-HE_150518A			05/18/15 09:59	
Boron			0.539	mg/L	0.050	108	85	115			
Magnesium			27.5	mg/L	1.0	110	85	115			
Sodium			26.7	mg/L	1.0	107	85	115			
Lab ID:	**H15050137-016AMS3**	3	Sample Matrix Sp ke				Run: ICP2-HE_150518A			05/18/15 10:18	
Boron			0.586	mg/L	0.050	106	70	130			
Magnesium			49.1	mg/L	1.0	115	70	130			
Sodium			56.2	mg/L	1.0	111	70	130			
Lab ID:	**H15050137-016AMSD**	3	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_150518A			05/18/15 10:21	
Boron			0.582	mg/L	0.050	105	70	130	0.7	20	
Magnesium			49.0	mg/L	1.0	115	70	130	0.3	20	
Sodium			55.9	mg/L	1.0	110	70	130	0.4	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_150511A		
Lab ID: ICV STD	20	Initial Calibration Verification Standard							05/11/15 12:30	
Aluminum		0.299	mg/L	0.10	100	90	110			
Antimony		0.0607	mg/L	0.050	101	90	110			
Arsenic		0.0616	mg/L	0.0050	103	90	110			
Barium		0.0596	mg/L	0.10	99	90	110			
Beryllium		0.0316	mg/L	0.0010	105	90	110			
Cadmium		0.0310	mg/L	0.0010	103	90	110			
Chromium		0.0608	mg/L	0.010	101	90	110			
Cobalt		0.0612	mg/L	0.010	102	90	110			
Copper		0.0623	mg/L	0.010	104	90	110			
Iron		0.320	mg/L	0.020	107	90	110			
Lead		0.0603	mg/L	0.010	100	90	110			
Manganese		0.309	mg/L	0.010	103	90	110			
Molybdenum		0.0592	mg/L	0.0050	99	90	110			
Nickel		0.0618	mg/L	0.010	103	90	110			
Potassium		3.07	mg/L	0.50	102	90	110			
Selenium		0.0616	mg/L	0.0050	103	90	110			
Silver		0.0285	mg/L	0.0050	95	90	110			
Uranium		0.0614	mg/L	0.0010	102	90	110			
Vanadium		0.0626	mg/L	0.10	104	90	110			
Zinc		0.0603	mg/L	0.010	101	90	110			
Lab ID: ICSA	20	Interference Check Sample A							05/11/15 12:33	
Aluminum		40.2	mg/L	0.10	100	70	130			
Antimony		0.000191	mg/L	0.050						
Arsenic		0.000192	mg/L	0.0050						
Barium		0.000113	mg/L	0.10						
Beryllium		3.50E-05	mg/L	0.0010						
Cadmium		0.000474	mg/L	0.0010						
Chromium		0.00106	mg/L	0.010						
Cobalt		3.20E-05	mg/L	0.010						
Copper		0.000539	mg/L	0.010						
Iron		104	mg/L	0.020	104	70	130			
Lead		0.000253	mg/L	0.010						
Manganese		0.000177	mg/L	0.010						
Molybdenum		0.845	mg/L	0.0050	106	70	130			
Nickel		0.000545	mg/L	0.010						
Potassium		40.5	mg/L	0.50	101	70	130			
Selenium		0.000597	mg/L	0.0050						
Silver		0.000118	mg/L	0.0050						
Uranium		9.40E-05	mg/L	0.0010						
Vanadium		0.000971	mg/L	0.10						
Zinc		0.00108	mg/L	0.010						

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_150511A		
Lab ID: ICSAB	20	Interference Check Sample AB								05/11/15 12:37
Aluminum		41.2	mg/L	0.10	103	70	130			
Antimony		0.000414	mg/L	0.050		0	0			
Arsenic		0.0112	mg/L	0.0050	112	70	130			
Barium		9.10E-05	mg/L	0.10		0	0			
Beryllium		3.50E-05	mg/L	0.0010		0	0			
Cadmium		0.0114	mg/L	0.0010	114	70	130			
Chromium		0.0229	mg/L	0.010	115	70	130			
Cobalt		0.0223	mg/L	0.010	111	70	130			
Copper		0.0221	mg/L	0.010	111	70	130			
Iron		108	mg/L	0.020	108	70	130			
Lead		0.000250	mg/L	0.010		0	0			
Manganese		0.0223	mg/L	0.010	111	70	130			
Molybdenum		0.852	mg/L	0.0050	107	70	130			
Nickel		0.0223	mg/L	0.010	112	70	130			
Potassium		41.6	mg/L	0.50	104	70	130			
Selenium		0.0124	mg/L	0.0050	124	70	130			
Silver		0.0194	mg/L	0.0050	97	70	130			
Uranium		2.60E-05	mg/L	0.0010		0	0			
Vanadium		0.0230	mg/L	0.10	115	70	130			
Zinc		0.0116	mg/L	0.010	116	70	130			
Lab ID: ICV STD	20	Initial Calibration Verification Standard								05/11/15 16:10
Aluminum		0.302	mg/L	0.10	101	90	110			
Antimony		0.0610	mg/L	0.050	102	90	110			
Arsenic		0.0615	mg/L	0.0050	103	90	110			
Barium		0.0616	mg/L	0.10	103	90	110			
Beryllium		0.0303	mg/L	0.0010	101	90	110			
Cadmium		0.0312	mg/L	0.0010	104	90	110			
Chromium		0.0601	mg/L	0.010	100	90	110			
Cobalt		0.0606	mg/L	0.010	101	90	110			
Copper		0.0618	mg/L	0.010	103	90	110			
Iron		0.320	mg/L	0.020	107	90	110			
Lead		0.0608	mg/L	0.010	101	90	110			
Manganese		0.308	mg/L	0.010	103	90	110			
Molybdenum		0.0598	mg/L	0.0050	100	90	110			
Nickel		0.0609	mg/L	0.010	102	90	110			
Potassium		3.12	mg/L	0.50	104	90	110			
Selenium		0.0623	mg/L	0.0050	104	90	110			
Silver		0.0291	mg/L	0.0050	97	90	110			
Uranium		0.0610	mg/L	0.0010	102	90	110			
Vanadium		0.0603	mg/L	0.10	100	90	110			
Zinc		0.0620	mg/L	0.010	103	90	110			

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Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_150511A		
Lab ID: ICSA	20	Interference Check Sample A								05/11/15 16:13
Aluminum		40.4	mg/L	0.10	101	70	130			
Antimony		0.000195	mg/L	0.050						
Arsenic		0.000141	mg/L	0.0050						
Barium		0.000126	mg/L	0.10						
Beryllium		3.60E-05	mg/L	0.0010						
Cadmium		0.000439	mg/L	0.0010						
Chromium		0.00106	mg/L	0.010						
Cobalt		1.20E-05	mg/L	0.010						
Copper		0.000583	mg/L	0.010						
Iron		104	mg/L	0.020	104	70	130			
Lead		0.000253	mg/L	0.010						
Manganese		0.000243	mg/L	0.010						
Molybdenum		0.848	mg/L	0.0050	106	70	130			
Nickel		0.000301	mg/L	0.010						
Potassium		41.0	mg/L	0.50	103	70	130			
Selenium		0.000817	mg/L	0.0050						
Silver		0.000153	mg/L	0.0050						
Uranium		9.30E-05	mg/L	0.0010						
Vanadium		0.000637	mg/L	0.10						
Zinc		0.00106	mg/L	0.010						
Lab ID: ICSAB	20	Interference Check Sample AB								05/11/15 16:16
Aluminum		41.2	mg/L	0.10	103	70	130			
Antimony		0.000429	mg/L	0.050		0	0			
Arsenic		0.0115	mg/L	0.0050	115	70	130			
Barium		8.80E-05	mg/L	0.10		0	0			
Beryllium		2.00E-06	mg/L	0.0010		0	0			
Cadmium		0.0114	mg/L	0.0010	115	70	130			
Chromium		0.0231	mg/L	0.010	116	70	130			
Cobalt		0.0221	mg/L	0.010	110	70	130			
Copper		0.0224	mg/L	0.010	112	70	130			
Iron		104	mg/L	0.020	104	70	130			
Lead		0.000261	mg/L	0.010		0	0			
Manganese		0.0226	mg/L	0.010	113	70	130			
Molybdenum		0.852	mg/L	0.0050	107	70	130			
Nickel		0.0221	mg/L	0.010	111	70	130			
Potassium		41.1	mg/L	0.50	103	70	130			
Selenium		0.0119	mg/L	0.0050	119	70	130			
Silver		0.0191	mg/L	0.0050	96	70	130			
Uranium		3.00E-05	mg/L	0.0010		0	0			
Vanadium		0.0230	mg/L	0.10	115	70	130			
Zinc		0.0117	mg/L	0.010	117	70	130			
Method: E200.8										Batch: R106028

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R106028	
Lab ID: ICB	20	Method Blank				Run: ICPMS204-B_150511A			05/11/15 14:28	
Aluminum		ND	mg/L	0.0008						
Antimony		ND	mg/L	4E-05						
Arsenic		ND	mg/L	6E-05						
Barium		ND	mg/L	8E-05						
Beryllium		ND	mg/L	0.0002						
Cadmium		ND	mg/L	2E-05						
Chromium		ND	mg/L	3E-05						
Cobalt		ND	mg/L	3E-05						
Copper		ND	mg/L	6E-05						
Iron		ND	mg/L	0.0008						
Lead		ND	mg/L	3E-05						
Manganese		ND	mg/L	4E-05						
Molybdenum		ND	mg/L	3E-05						
Nickel		ND	mg/L	3E-05						
Potassium		ND	mg/L	0.008						
Selenium		ND	mg/L	4E-05						
Silver		ND	mg/L	3E-05						
Uranium		ND	mg/L	1.0E-05						
Vanadium		ND	mg/L	3E-05						
Zinc		0.0002	mg/L	0.0001						
Lab ID: LFB	20	Laboratory Fortified Blank				Run: ICPMS204-B_150511A			05/11/15 14:31	
Aluminum		0.0543	mg/L	0.10	109	85	115			
Antimony		0.0525	mg/L	0.050	105	85	115			
Arsenic		0.0530	mg/L	0.0050	106	85	115			
Barium		0.0536	mg/L	0.10	107	85	115			
Beryllium		0.0516	mg/L	0.0010	103	85	115			
Cadmium		0.0537	mg/L	0.0010	107	85	115			
Chromium		0.0532	mg/L	0.010	106	85	115			
Cobalt		0.0527	mg/L	0.010	105	85	115			
Copper		0.0524	mg/L	0.010	105	85	115			
Iron		0.170	mg/L	0.020	113	85	115			
Lead		0.0544	mg/L	0.010	109	85	115			
Manganese		0.0554	mg/L	0.010	111	85	115			
Molybdenum		0.0503	mg/L	0.0050	101	85	115			
Nickel		0.0526	mg/L	0.010	105	85	115			
Potassium		1.05	mg/L	0.50	105	85	115			
Selenium		0.0553	mg/L	0.0050	111	85	115			
Silver		0.0205	mg/L	0.0050	102	85	115			
Uranium		0.0533	mg/L	0.0010	107	85	115			
Vanadium		0.0517	mg/L	0.10	103	85	115			
Zinc		0.0551	mg/L	0.010	110	85	115			

Qualifiers:

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ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R106028	
Lab ID: H15050137-002AMS	20	Sample Matrix Sp ke				Run: ICPMS204-B_150511A			05/11/15 18:21	
Aluminum		0.0506	mg/L	0.030	95	70	130			
Antimony		0.0527	mg/L	0.0010	103	70	130			
Arsenic		0.0845	mg/L	0.0010	112	70	130			
Barium		0.0628	mg/L	0.050	104	70	130			
Beryllium		0.0477	mg/L	0.0010	95	70	130			
Cadmium		0.0470	mg/L	0.0010	94	70	130			
Chromium		0.0527	mg/L	0.0050	102	70	130			
Cobalt		0.0502	mg/L	0.0050	100	70	130			
Copper		0.0572	mg/L	0.0050	97	70	130			
Iron		0.156	mg/L	0.020	101	70	130			
Lead		0.0526	mg/L	0.0010	105	70	130			
Manganese		0.0512	mg/L	0.0010	102	70	130			
Molybdenum		0.0978	mg/L	0.0010	106	70	130			
Nickel		0.0490	mg/L	0.0050	97	70	130			
Potassium		3.30	mg/L	1.0	98	70	130			
Selenium		0.0758	mg/L	0.0010	115	70	130			
Silver		0.0169	mg/L	0.0010	84	70	130			
Uranium		0.829	mg/L	0.00030		70	130			A
Vanadium		0.0803	mg/L	0.010	105	70	130			
Zinc		0.0586	mg/L	0.010	90	70	130			
Lab ID: H15050137-002AMSD	20	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150511A			05/11/15 18:24	
Aluminum		0.0525	mg/L	0.030	99	70	130	3.6	20	
Antimony		0.0533	mg/L	0.0010	104	70	130	1.1	20	
Arsenic		0.0852	mg/L	0.0010	114	70	130	0.8	20	
Barium		0.0626	mg/L	0.050	104	70	130	0.2	20	
Beryllium		0.0487	mg/L	0.0010	97	70	130	2.2	20	
Cadmium		0.0476	mg/L	0.0010	95	70	130	1.2	20	
Chromium		0.0536	mg/L	0.0050	104	70	130	1.8	20	
Cobalt		0.0511	mg/L	0.0050	102	70	130	1.6	20	
Copper		0.0580	mg/L	0.0050	98	70	130	1.3	20	
Iron		0.154	mg/L	0.020	99	70	130	1.2	20	
Lead		0.0526	mg/L	0.0010	105	70	130	0.1	20	
Manganese		0.0517	mg/L	0.0010	103	70	130	1.0	20	
Molybdenum		0.100	mg/L	0.0010	111	70	130	2.2	20	
Nickel		0.0502	mg/L	0.0050	100	70	130	2.4	20	
Potassium		3.38	mg/L	1.0	106	70	130	2.4	20	
Selenium		0.0734	mg/L	0.0010	110	70	130	3.2	20	
Silver		0.0174	mg/L	0.0010	87	70	130	2.9	20	
Uranium		0.848	mg/L	0.00030		70	130	2.2	20	A
Vanadium		0.0819	mg/L	0.010	109	70	130	2.0	20	
Zinc		0.0597	mg/L	0.010	92	70	130	1.8	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the sp ke level. In accordance with the method % recovery is not calculated.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R106028	
Lab ID: H15050137-012AMS	20	Sample Matrix Sp ke				Run: ICPMS204-B_150511A			05/11/15 19:12	
Aluminum		0.702	mg/L	0.030		70	130			A
Antimony		0.0511	mg/L	0.0010	101	70	130			
Arsenic		0.0633	mg/L	0.0010	113	70	130			
Barium		0.0886	mg/L	0.050	108	70	130			
Beryllium		0.0534	mg/L	0.0010	107	70	130			
Cadmium		0.0533	mg/L	0.0010	107	70	130			
Chromium		0.0541	mg/L	0.0050	107	70	130			
Cobalt		0.0539	mg/L	0.0050	107	70	130			
Copper		0.0552	mg/L	0.0050	109	70	130			
Iron		0.791	mg/L	0.020	192	70	130			S
Lead		0.0543	mg/L	0.0010	108	70	130			
Manganese		0.0731	mg/L	0.0010	108	70	130			
Molybdenum		0.0608	mg/L	0.0010	110	70	130			
Nickel		0.0540	mg/L	0.0050	108	70	130			
Potassium		4.75	mg/L	1.0	120	70	130			
Selenium		0.0550	mg/L	0.0010	102	70	130			
Silver		0.0213	mg/L	0.0010	107	70	130			
Uranium		0.0846	mg/L	0.00030	106	70	130			
Vanadium		0.0579	mg/L	0.010	108	70	130			
Zinc		0.0574	mg/L	0.010	102	70	130			
Lab ID: H15050137-012AMSD	20	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150511A			05/11/15 19:15	
Aluminum		0.616	mg/L	0.030		70	130	13	20	A
Antimony		0.0495	mg/L	0.0010	98	70	130	3.2	20	
Arsenic		0.0620	mg/L	0.0010	110	70	130	2.2	20	
Barium		0.0862	mg/L	0.050	103	70	130	2.7	20	
Beryllium		0.0526	mg/L	0.0010	105	70	130	1.5	20	
Cadmium		0.0513	mg/L	0.0010	103	70	130	3.7	20	
Chromium		0.0533	mg/L	0.0050	105	70	130	1.5	20	
Cobalt		0.0529	mg/L	0.0050	105	70	130	1.9	20	
Copper		0.0537	mg/L	0.0050	106	70	130	2.8	20	
Iron		0.651	mg/L	0.020	99	70	130	19	20	
Lead		0.0531	mg/L	0.0010	106	70	130	2.2	20	
Manganese		0.0709	mg/L	0.0010	103	70	130	3.0	20	
Molybdenum		0.0585	mg/L	0.0010	106	70	130	3.9	20	
Nickel		0.0525	mg/L	0.0050	105	70	130	2.9	20	
Potassium		4.67	mg/L	1.0	112	70	130	1.7	20	
Selenium		0.0561	mg/L	0.0010	105	70	130	2.0	20	
Silver		0.0205	mg/L	0.0010	103	70	130	3.8	20	
Uranium		0.0829	mg/L	0.00030	103	70	130	2.1	20	
Vanadium		0.0570	mg/L	0.010	107	70	130	1.5	20	
Zinc		0.0562	mg/L	0.010	100	70	130	2.1	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the sp ke level. In accordance with the method % recovery is not calculated.

S - Sp ke recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.8**								Analytical Run: ICPMS204-B_150515A		
Lab ID:	**ICV STD**	2	Initial Calibration Verification Standard							05/15/15 12:06	
Antimony			0.0611	mg/L	0.050	102	90	110			
Iron			0.309	mg/L	0.020	103	90	110			
Lab ID:	**ICSA**	2	Interference Check Sample A							05/15/15 12:09	
Antimony			0.000187	mg/L	0.050						
Iron			104	mg/L	0.020	104	70	130			
Lab ID:	**ICSAB**	2	Interference Check Sample AB							05/15/15 12:12	
Antimony			0.000355	mg/L	0.050		0	0			
Iron			102	mg/L	0.020	102	70	130			
Lab ID:	**ICV STD**	2	Initial Calibration Verification Standard							05/15/15 14:47	
Antimony			0.0614	mg/L	0.050	102	90	110			
Iron			0.311	mg/L	0.020	104	90	110			
Lab ID:	**ICSA**	2	Interference Check Sample A							05/15/15 14:51	
Antimony			0.000179	mg/L	0.050						
Iron			104	mg/L	0.020	104	70	130			
Lab ID:	**ICSAB**	2	Interference Check Sample AB							05/15/15 14:54	
Antimony			0.000405	mg/L	0.050		0	0			
Iron			102	mg/L	0.020	102	70	130			
Method:	**E200.8**										Batch: R106188
Lab ID:	**ICB**	2	Method Blank				Run: ICPMS204-B_150515A			05/15/15 12:28	
Antimony			ND	mg/L	4E-05						
Iron			0.003	mg/L	0.0008						
Lab ID:	**LFB**	2	Laboratory Fortified Blank				Run: ICPMS204-B_150515A			05/15/15 12:31	
Antimony			0.0515	mg/L	0.050	103	85	115			
Iron			0.159	mg/L	0.020	104	85	115			
Lab ID:	**H15050137-002AMS**	2	Sample Matrix Sp ke				Run: ICPMS204-B_150515A			05/15/15 13:19	
Antimony			0.0535	mg/L	0.0010	106	70	130			
Iron			0.154	mg/L	0.020	99	70	130			
Lab ID:	**H15050137-002AMSD**	2	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150515A			05/15/15 13:23	
Antimony			0.0533	mg/L	0.0010	105	70	130	0.3	20	
Iron			0.153	mg/L	0.020	99	70	130	0.7	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_150518A		
Lab ID: ICV STD	11	Initial Calibration Verification Standard								05/18/15 11:17
Antimony		0.0604	mg/L	0.050	101	90	110			
Beryllium		0.0315	mg/L	0.0010	105	90	110			
Calcium		3.02	mg/L	0.50	101	90	110			
Chromium		0.0598	mg/L	0.010	100	90	110			
Cobalt		0.0600	mg/L	0.010	100	90	110			
Molybdenum		0.0602	mg/L	0.0050	100	90	110			
Nickel		0.0606	mg/L	0.010	101	90	110			
Potassium		3.08	mg/L	0.50	103	90	110			
Selenium		0.0612	mg/L	0.0050	102	90	110			
Silver		0.0292	mg/L	0.0050	97	90	110			
Uranium		0.0624	mg/L	0.0010	104	90	110			
Lab ID: ICSA	11	Interference Check Sample A								05/18/15 11:20
Antimony		0.000168	mg/L	0.050						
Beryllium		2.60E-05	mg/L	0.0010						
Calcium		123	mg/L	0.50	103	70	130			
Chromium		0.00105	mg/L	0.010						
Cobalt		1.50E-05	mg/L	0.010						
Molybdenum		0.873	mg/L	0.0050	109	70	130			
Nickel		0.000567	mg/L	0.010						
Potassium		41.5	mg/L	0.50	104	70	130			
Selenium		0.000555	mg/L	0.0050						
Silver		0.000170	mg/L	0.0050						
Uranium		0.000101	mg/L	0.0010						
Lab ID: ICSAB	11	Interference Check Sample AB								05/18/15 11:23
Antimony		0.000366	mg/L	0.050		0	0			
Beryllium		2.60E-05	mg/L	0.0010		0	0			
Calcium		125	mg/L	0.50	104	70	130			
Chromium		0.0237	mg/L	0.010	118	70	130			
Cobalt		0.0226	mg/L	0.010	113	70	130			
Molybdenum		0.885	mg/L	0.0050	111	70	130			
Nickel		0.0233	mg/L	0.010	116	70	130			
Potassium		42.1	mg/L	0.50	105	70	130			
Selenium		0.0121	mg/L	0.0050	121	70	130			
Silver		0.0195	mg/L	0.0050	98	70	130			
Uranium		2.90E-05	mg/L	0.0010		0	0			
Method: E200.8										Batch: 28898
Lab ID: MB-28898	14	Method Blank				Run: ICPMS204-B_150518A				05/18/15 12:51
Antimony		0.0001	mg/L	6E-05						
Beryllium		ND	mg/L	0.0003						
Boron		ND	mg/L	0.002						
Calcium		0.01	mg/L	0.008						
Chromium		ND	mg/L	0.0001						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 28898
Lab ID: MB-28898	14	Method Blank				Run: ICPMS204-B_150518A				05/18/15 12:51
Cobalt		ND	mg/L	3E-05						
Magnesium		ND	mg/L	0.006						
Molybdenum		ND	mg/L	4E-05						
Nickel		ND	mg/L	3E-05						
Potassium		0.04	mg/L	0.02						
Selenium		ND	mg/L	7E-05						
Silver		8E-05	mg/L	5E-05						
Sodium		0.10	mg/L	0.004						
Uranium		ND	mg/L	5E-05						
Lab ID: LCS-28898	14	Laboratory Control Sample				Run: ICPMS204-B_150518A				05/18/15 12:54
Antimony		0.551	mg/L	0.0010	110	85	115			
Beryllium		0.248	mg/L	0.0010	99	85	115			
Boron		0.493	mg/L	0.050	99	85	115			
Calcium		25.0	mg/L	1.0	100	85	115			
Chromium		0.503	mg/L	0.0050	101	85	115			
Cobalt		0.499	mg/L	0.0050	100	85	115			
Magnesium		25.7	mg/L	1.0	103	85	115			
Molybdenum		0.543	mg/L	0.0010	109	85	115			
Nickel		0.500	mg/L	0.0050	100	85	115			
Potassium		24.3	mg/L	1.0	97	85	115			
Selenium		0.532	mg/L	0.0010	106	85	115			
Silver		0.0516	mg/L	0.0010	103	85	115			
Sodium		25.4	mg/L	1.0	101	85	115			
Uranium		0.540	mg/L	0.00030	108	85	115			
Lab ID: H15050137-016AMS3	14	Sample Matrix Sp ke				Run: ICPMS204-B_150518A				05/18/15 13:07
Antimony		0.546	mg/L	0.0010	109	70	130			
Beryllium		0.248	mg/L	0.0010	99	70	130			
Boron		0.552	mg/L	0.050	100	70	130			
Calcium		115	mg/L	1.0	101	70	130			
Chromium		0.506	mg/L	0.0050	101	70	130			
Cobalt		0.494	mg/L	0.0050	99	70	130			
Magnesium		45.9	mg/L	1.0	102	70	130			
Molybdenum		0.548	mg/L	0.0010	109	70	130			
Nickel		0.489	mg/L	0.0050	98	70	130			
Potassium		28.7	mg/L	1.0	98	70	130			
Selenium		0.511	mg/L	0.0010	101	70	130			
Silver		0.0502	mg/L	0.0010	100	70	130			
Sodium		53.1	mg/L	1.0	103	70	130			
Uranium		0.609	mg/L	0.00030	110	70	130			
Lab ID: H15050137-016AMSD	14	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150518A				05/18/15 13:10
Antimony		0.545	mg/L	0.0010	109	70	130	0.1	20	
Beryllium		0.241	mg/L	0.0010	96	70	130	2.8	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 28898
Lab ID: H15050137-016AMSD	14	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150518A			05/18/15 13:10	
Boron		0.543	mg/L	0.050	98	70	130	1.7	20	
Calcium		116	mg/L	1.0	105	70	130	1.0	20	
Chromium		0.506	mg/L	0.0050	101	70	130	0.1	20	
Cobalt		0.497	mg/L	0.0050	99	70	130	0.7	20	
Magnesium		47.0	mg/L	1.0	107	70	130	2.5	20	
Molybdenum		0.543	mg/L	0.0010	108	70	130	0.9	20	
Nickel		0.493	mg/L	0.0050	98	70	130	0.8	20	
Potassium		30.2	mg/L	1.0	104	70	130	5.1	20	
Selenium		0.499	mg/L	0.0010	99	70	130	2.4	20	
Silver		0.0504	mg/L	0.0010	100	70	130	0.4	20	
Sodium		52.7	mg/L	1.0	102	70	130	0.8	20	
Uranium		0.603	mg/L	0.00030	109	70	130	0.9	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_150519A		
Lab ID: ICV STD	10	Initial Calibration Verification Standard								05/19/15 11:26
Aluminum		0.280	mg/L	0.10	93	90	110			
Arsenic		0.0602	mg/L	0.0050	100	90	110			
Barium		0.0595	mg/L	0.10	99	90	110			
Cadmium		0.0308	mg/L	0.0010	103	90	110			
Copper		0.0604	mg/L	0.010	101	90	110			
Iron		0.316	mg/L	0.020	105	90	110			
Lead		0.0595	mg/L	0.010	99	90	110			
Manganese		0.297	mg/L	0.010	99	90	110			
Vanadium		0.0564	mg/L	0.10	94	90	110			
Zinc		0.0624	mg/L	0.010	104	90	110			
Lab ID: ICSA	10	Interference Check Sample A								05/19/15 11:29
Aluminum		37.2	mg/L	0.10	93	70	130			
Arsenic		0.000155	mg/L	0.0050						
Barium		6.30E-05	mg/L	0.10						
Cadmium		0.000260	mg/L	0.0010						
Copper		0.000370	mg/L	0.010						
Iron		103	mg/L	0.020	103	70	130			
Lead		0.000249	mg/L	0.010						
Manganese		0.000313	mg/L	0.010						
Vanadium		7.10E-05	mg/L	0.10						
Zinc		0.00104	mg/L	0.010						
Lab ID: ICSAB	10	Interference Check Sample AB								05/19/15 11:33
Aluminum		37.1	mg/L	0.10	93	70	130			
Arsenic		0.0111	mg/L	0.0050	111	70	130			
Barium		7.50E-05	mg/L	0.10		0	0			
Cadmium		0.0106	mg/L	0.0010	106	70	130			
Copper		0.0209	mg/L	0.010	105	70	130			
Iron		103	mg/L	0.020	103	70	130			
Lead		0.000249	mg/L	0.010		0	0			
Manganese		0.0216	mg/L	0.010	108	70	130			
Vanadium		0.0212	mg/L	0.10	106	70	130			
Zinc		0.0109	mg/L	0.010	109	70	130			
Method: E200.8										Batch: R106255
Lab ID: ICB	10	Method Blank				Run: ICPMS204-B_150519A				05/19/15 12:01
Aluminum		ND	mg/L	0.0008						
Arsenic		ND	mg/L	6E-05						
Barium		ND	mg/L	8E-05						
Cadmium		ND	mg/L	2E-05						
Copper		ND	mg/L	6E-05						
Iron		0.001	mg/L	0.0008						
Lead		ND	mg/L	3E-05						
Manganese		ND	mg/L	4E-05						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R106255	
Lab ID: ICB	10	Method Blank				Run: ICPMS204-B_150519A			05/19/15 12:01	
Vanadium		ND	mg/L	3E-05						
Zinc		0.0003	mg/L	0.0001						
Lab ID: LFB	10	Laboratory Fortified Blank				Run: ICPMS204-B_150519A			05/19/15 12:04	
Aluminum		0.0519	mg/L	0.10	104	85	115			
Arsenic		0.0542	mg/L	0.0050	108	85	115			
Barium		0.0535	mg/L	0.10	107	85	115			
Cadmium		0.0547	mg/L	0.0010	109	85	115			
Copper		0.0549	mg/L	0.010	110	85	115			
Iron		0.168	mg/L	0.020	111	85	115			
Lead		0.0533	mg/L	0.010	107	85	115			
Manganese		0.0543	mg/L	0.010	109	85	115			
Vanadium		0.0512	mg/L	0.10	102	85	115			
Zinc		0.0569	mg/L	0.010	113	85	115			
Lab ID: H15050137-016AMS	10	Sample Matrix Sp ke				Run: ICPMS204-B_150519A			05/19/15 12:17	
Aluminum		0.0856	mg/L	0.030	104	70	130			
Arsenic		0.0654	mg/L	0.0010	116	70	130			
Barium		0.0937	mg/L	0.050	105	70	130			
Cadmium		0.0524	mg/L	0.0010	105	70	130			
Copper		0.0532	mg/L	0.0050	104	70	130			
Iron		0.206	mg/L	0.020	115	70	130			
Lead		0.0537	mg/L	0.0010	107	70	130			
Manganese		0.0551	mg/L	0.0010	108	70	130			
Vanadium		0.0546	mg/L	0.010	104	70	130			
Zinc		0.0528	mg/L	0.010	102	70	130			
Lab ID: H15050137-016AMSD	10	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150519A			05/19/15 12:20	
Aluminum		0.0846	mg/L	0.030	102	70	130	1.1	20	
Arsenic		0.0668	mg/L	0.0010	119	70	130	2.2	20	
Barium		0.0967	mg/L	0.050	111	70	130	3.2	20	
Cadmium		0.0538	mg/L	0.0010	108	70	130	2.7	20	
Copper		0.0543	mg/L	0.0050	107	70	130	2.0	20	
Iron		0.253	mg/L	0.020	146	70	130	20	20	SR
Lead		0.0547	mg/L	0.0010	109	70	130	1.8	20	
Manganese		0.0559	mg/L	0.0010	109	70	130	1.6	20	
Vanadium		0.0558	mg/L	0.010	106	70	130	2.0	20	
Zinc		0.0533	mg/L	0.010	103	70	130	0.8	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

R - RPD exceeds advisory limit.

S - Sp ke recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_150521B		
Lab ID: ICV STD	4	Initial Calibration Verification Standard							05/21/15 10:32	
Aluminum		0.298	mg/L	0.10	99	90	110			
Copper		0.0634	mg/L	0.010	106	90	110			
Iron		0.326	mg/L	0.020	109	90	110			
Manganese		0.308	mg/L	0.010	103	90	110			
Lab ID: ICSA	4	Interference Check Sample A							05/21/15 10:36	
Aluminum		39.1	mg/L	0.10	98	70	130			
Copper		0.000541	mg/L	0.010						
Iron		104	mg/L	0.020	104	70	130			
Manganese		0.000375	mg/L	0.010						
Lab ID: ICSAB	4	Interference Check Sample AB							05/21/15 10:39	
Aluminum		39.0	mg/L	0.10	97	70	130			
Copper		0.0216	mg/L	0.010	108	70	130			
Iron		102	mg/L	0.020	102	70	130			
Manganese		0.0220	mg/L	0.010	110	70	130			
Method: E200.8									Batch: R106329	
Lab ID: ICB	4	Method Blank				Run: ICPMS204-B_150521B			05/21/15 11:53	
Aluminum		ND	mg/L	0.0008						
Copper		ND	mg/L	6E-05						
Iron		ND	mg/L	0.0008						
Manganese		ND	mg/L	4E-05						
Lab ID: LFB	4	Laboratory Fortified Blank				Run: ICPMS204-B_150521B			05/21/15 11:56	
Aluminum		0.0526	mg/L	0.10	105	85	115			
Copper		0.0523	mg/L	0.010	105	85	115			
Iron		0.160	mg/L	0.020	107	85	115			
Manganese		0.0519	mg/L	0.010	104	85	115			
Lab ID: H15050137-011AMS	4	Sample Matrix Sp ke				Run: ICPMS204-B_150521B			05/21/15 12:10	
Aluminum		0.0552	mg/L	0.030	104	70	130			
Copper		0.0524	mg/L	0.0050	104	70	130			
Iron		0.168	mg/L	0.020	107	70	130			
Manganese		0.0537	mg/L	0.0010	107	70	130			
Lab ID: H15050137-011AMSD	4	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150521B			05/21/15 12:13	
Aluminum		0.0558	mg/L	0.030	105	70	130	1.0	20	
Copper		0.0513	mg/L	0.0050	102	70	130	2.3	20	
Iron		0.164	mg/L	0.020	105	70	130	2.2	20	
Manganese		0.0518	mg/L	0.0010	103	70	130	3.6	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.8**								Analytical Run: ICPMS204-B_150526B		
Lab ID:	**ICV STD**	2	Initial Calibration Verification Standard							05/26/15 10:33	
Aluminum			0.295	mg/L	0.10	99	90	110			
Manganese			0.305	mg/L	0.010	102	90	110			
Lab ID:	**ICSA**	2	Interference Check Sample A							05/26/15 10:36	
Aluminum			41.3	mg/L	0.10	103	70	130			
Manganese			0.000319	mg/L	0.010						
Lab ID:	**ICSAB**	2	Interference Check Sample AB							05/26/15 10:40	
Aluminum			41.4	mg/L	0.10	104	70	130			
Manganese			0.0236	mg/L	0.010	118	70	130			
Method:	**E200.8**									Batch: R106378	
Lab ID:	**ICB**	2	Method Blank				Run: ICPMS204-B_150526B			05/26/15 13:12	
Aluminum			ND	mg/L	0.0008						
Manganese			4E-05	mg/L	4E-05						
Lab ID:	**LFB**	2	Laboratory Fortified Blank				Run: ICPMS204-B_150526B			05/26/15 13:16	
Aluminum			0.0518	mg/L	0.10	104	85	115			
Manganese			0.0527	mg/L	0.010	105	85	115			
Lab ID:	**H15050265-004BMS**	2	Sample Matrix Sp ke				Run: ICPMS204-B_150526B			05/26/15 13:22	
Aluminum			0.0504	mg/L	0.030	99	70	130			
Manganese			3.86	mg/L	0.0010		70	130			A
Lab ID:	**H15050265-004BMSD**	2	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150526B			05/26/15 13:25	
Aluminum			0.0540	mg/L	0.030	106	70	130	7.0	20	
Manganese			3.87	mg/L	0.0010		70	130	0.2	20	A

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the sp ke level. In accordance with the method % recovery is not calculated.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E245.1**								Analytical Run: HGCV202-H_150513A		
Lab ID:	**ICV**		Initial Calibration Verification Standard							05/13/15 11:42	
Mercury			0.00019	mg/L	0.00010	96	90	110			
Lab ID:	**CCV1**		Continuing Calibration Verification Standard							05/13/15 11:46	
Mercury			0.00021	mg/L	0.00010	103	95	105			
Lab ID:	**CCV**		Continuing Calibration Verification Standard							05/13/15 13:00	
Mercury			0.00020	mg/L	0.00010	99	90	110			
Method:	**E245.1**										Batch: 28889
Lab ID:	**MB-28889**		Method Blank				Run: HGCV202-H_150513A			05/13/15 11:55	
Mercury			1E-06	mg/L	1E-06						
Lab ID:	**H15050133-001BMS**		Sample Matrix Sp ke				Run: HGCV202-H_150513A			05/13/15 12:06	
Mercury			0.00015	mg/L	0.00010	91	70	130			
Lab ID:	**H15050133-001BMSD**		Sample Matrix Sp ke Duplicate				Run: HGCV202-H_150513A			05/13/15 12:10	
Mercury			0.00014	mg/L	0.00010	86	70	130	5.8	20	
Lab ID:	**LCS-28889**		Laboratory Control Sample				Run: HGCV202-H_150513A			05/13/15 12:18	
Mercury			0.00014	mg/L	0.00010	95	90	110			
Lab ID:	**H15050137-006AMS**		Sample Matrix Sp ke				Run: HGCV202-H_150513A			05/13/15 13:11	
Mercury			0.00014	mg/L	0.00010	84	70	130			
Lab ID:	**H15050137-006AMSD**		Sample Matrix Sp ke Duplicate				Run: HGCV202-H_150513A			05/13/15 13:15	
Mercury			0.00014	mg/L	0.00010	85	70	130	1.2	20	
Method:	**E245.1**								Analytical Run: HGCV202-H_150513B		
Lab ID:	**ICV**		Initial Calibration Verification Standard							05/13/15 15:30	
Mercury			0.00021	mg/L	0.00010	103	90	110			
Lab ID:	**CCV1**		Continuing Calibration Verification Standard							05/13/15 15:34	
Mercury			0.00020	mg/L	0.00010	100	95	105			
Method:	**E245.1**										Batch: 28890
Lab ID:	**MB-28890**		Method Blank				Run: HGCV202-H_150513B			05/13/15 15:46	
Mercury			ND	mg/L	1E-06						
Lab ID:	**LCS-28890**		Laboratory Control Sample				Run: HGCV202-H_150513B			05/13/15 16:02	
Mercury			0.00015	mg/L	0.00010	100	90	110			
Lab ID:	**H15050137-016AMS**		Sample Matrix Sp ke				Run: HGCV202-H_150513B			05/13/15 16:10	
Mercury			0.00017	mg/L	0.00010	106	70	130			
Lab ID:	**H15050137-016AMSD**		Sample Matrix Sp ke Duplicate				Run: HGCV202-H_150513B			05/13/15 16:14	
Mercury			0.00014	mg/L	0.00010	88	70	130	18	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E300.0**									Analytical Run: IC102-H_150512A	
Lab ID:	**ICV**	2	Initial Calibration Verification Standard							05/12/15 10:23	
Chloride			103	mg/L	1.0	103	90	110			
Sulfate			406	mg/L	1.0	102	90	110			
Lab ID:	**CCV051215-4**	2	Continuing Calibration Verification Standard							05/12/15 19:50	
Chloride			103	mg/L	1.0	103	90	110			
Sulfate			415	mg/L	1.0	104	90	110			
Lab ID:	**CCV051215-5**	2	Continuing Calibration Verification Standard							05/12/15 22:37	
Chloride			103	mg/L	1.0	103	90	110			
Sulfate			413	mg/L	1.0	103	90	110			
Method:	**E300.0**									Batch: R106084	
Lab ID:	**ICB**	2	Method Blank				Run: IC102-H_150512A			05/12/15 10:12	
Chloride			0.01	mg/L	0.010						
Sulfate			ND	mg/L	0.009						
Lab ID:	**LFB**	2	Laboratory Fortified Blank				Run: IC102-H_150512A			05/12/15 10:35	
Chloride			48.8	mg/L	1.0	98	90	110			
Sulfate			200	mg/L	1.0	100	90	110			
Lab ID:	**H15050137-009BMS**	2	Sample Matrix Sp ke				Run: IC102-H_150512A			05/12/15 22:15	
Chloride			54.7	mg/L	1.0	101	90	110			
Sulfate			428	mg/L	1.0	107	90	110			
Lab ID:	**H15050137-009BMSD**	2	Sample Matrix Sp ke Duplicate				Run: IC102-H_150512A			05/12/15 22:26	
Chloride			55.1	mg/L	1.0	102	90	110	0.8	20	
Sulfate			429	mg/L	1.0	107	90	110	0.3	20	
Lab ID:	**H15050139-001AMS**	2	Sample Matrix Sp ke				Run: IC102-H_150512A			05/13/15 01:01	
Chloride			58.8	mg/L	1.0	103	90	110			
Sulfate			253	mg/L	1.0	105	90	110			
Lab ID:	**H15050139-001AMSD**	2	Sample Matrix Sp ke Duplicate				Run: IC102-H_150512A			05/13/15 01:12	
Chloride			59.7	mg/L	1.0	104	90	110	1.6	20	
Sulfate			255	mg/L	1.0	105	90	110	0.7	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 05/27/15

Project: Silver Bow Creek Monitoring 2nd Q 2015 **Work Order:** H15050137

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E300.0**									Analytical Run: IC102-H_150513A	
Lab ID:	**ICV**		Initial Calibration Verification Standard							05/13/15 16:17	
Sulfate			409	mg/L	1.0	102	90	110			
Lab ID:	**CCV051315-3**		Continuing Calibration Verification Standard							05/13/15 22:45	
Sulfate			408	mg/L	1.0	102	90	110			
Method:	**E300.0**									Batch: R106116	
Lab ID:	**ICB**		Method Blank				Run: IC102-H_150513A			05/13/15 16:05	
Sulfate			ND	mg/L	0.009						
Lab ID:	**LFB**		Laboratory Fortified Blank				Run: IC102-H_150513A			05/13/15 16:28	
Sulfate			198	mg/L	1.0	99	90	110			
Lab ID:	**H15050183-002AMS**		Sample Matrix Sp ke				Run: IC102-H_150513A			05/14/15 01:21	
Sulfate			1250	mg/L	1.0	97	90	110			
Lab ID:	**H15050183-002AMSD**		Sample Matrix Sp ke Duplicate				Run: IC102-H_150513A			05/14/15 01:32	
Sulfate			1260	mg/L	1.0	100	90	110	0.8	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

Work Order Receipt Checklist

MT DEQ-Federal Superfund

H15050137

Login completed by:	Wanda Johnson	Date Received:	5/8/2015
Reviewed by:	BL2000\rwilliams	Received by:	raw
Reviewed Date:	5/11/2015	Carrier name:	Hand Del-Left in Locked Entry

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☐	No ☑	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	2.5°C On Ice		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

Samples for Dissolved Metals/Hardness were subsampled, filtered, and preserved to pH <2 with 2 mL of Nitric acid per 250 mL in the laboratory. According to 40CFR136, samples for Dissolved Metals should be filtered and preserved within 15 minutes of collection. Limited Sample volume for samples LYS-01 through 08, list of priorities is Dissolved Metals, Hardness Sulfate/Chloride and Alkalinity. COC states ID as "MW-2B" has no dashes on the sample bottles. wj 5/8/15

APPENDIX B3

ANALYTICAL LABORATORY RESULTS
3RD QUARTER MONITORING

ANALYTICAL SUMMARY REPORT

October 05, 2015

Natural Resource Damage Program
1301 E Lockey
Helena, MT 59620-1425

Work Order: H15090199 Quote ID: H1088 - Silver Bow Monitoring

Project Name: Silver Bow Creek Monitoring

Energy Laboratories Inc Helena MT received the following 12 samples for Natural Resource Damage Program on 9/10/2015 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H15090199-001	SS-01	09/09/15 18:15	09/10/15	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Carbon, Dissolved Organic Conductivity Mercury, Dissolved Mercury, Total Recoverable Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Nitrogen, Total Persulfate Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Digestion, Total P Water Nitrogen, Total Persulfate Phosphorus, Total Solids, Total Suspended Solids, Suspended Volatile
H15090199-002	SS-05A	09/09/15 17:00	09/10/15	Aqueous	Same As Above
H15090199-003	SS-15G	09/08/15 14:15	09/10/15	Aqueous	Same As Above
H15090199-004	SS-01 Sediment Sieve <0.065mm	09/09/15 18:15	09/10/15	Sediment	Metals by ICP/ICPMS, Total Mercury in Solid By CVAA Percent Moisture Digestion, Total Metals Digestion, Mercury by CVAA Sieves Soil Preparation
H15090199-005	SS-01 Sediment Sieve 0.065-1mm	09/09/15 18:15	09/10/15	Sediment	Metals by ICP/ICPMS, Total Mercury in Solid By CVAA Percent Moisture Digestion, Total Metals Digestion, Mercury by CVAA Sieves
H15090199-006	SS-01 Sediment Sieve 1-2mm	09/09/15 18:15	09/10/15	Sediment	Same As Above
H15090199-007	SS-05A Sediment Sieve <0.065mm	09/09/15 17:00	09/10/15	Sediment	Same As Above
H15090199-008	SS-05A Sediment Sieve 0.065-1mm	09/09/15 17:00	09/10/15	Sediment	Same As Above
H15090199-009	SS-05A Sediment Sieve 1-2mm	09/09/15 17:00	09/10/15	Sediment	Same As Above

ANALYTICAL SUMMARY REPORT

H15090199-010	SS-15G Sediment Sieve <0.065mm	09/08/15 14:15	09/10/15	Sediment	Same As Above
H15090199-011	SS-15G Sediment Sieve 0.065-1mm	09/08/15 14:15	09/10/15	Sediment	Same As Above
H15090199-012	SS-15G Sediment Sieve 1-2mm	09/08/15 14:15	09/10/15	Sediment	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Natural Resource Damage Program
Project: Silver Bow Creek Monitoring
Work Order: H15090199

Report Date: 10/05/15

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01
Lab ID: H15090199-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 18:15
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	4	mg/L	D	2		A2540 D	09/10/15 13:52 / SR		-124 (14410200)_150910A	3	TSS150910A
Solids, Volatile Suspended	3	mg/L		1		A2540 E	09/11/15 09:13 / SR		MISC WC_150911A	2	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	98	mg/L		4		A2320 B	09/10/15 18:19 / SR		PHSC_101-H_150910A	53	R109235
Bicarbonate as HCO3	120	mg/L		4		A2320 B	09/10/15 18:19 / SR		PHSC_101-H_150910A	53	R109235
Chloride	11	mg/L		1		E300.0	09/10/15 18:52 / SR		IC102-H_150910A	24	R109272
Sulfate	30	mg/L		1		E300.0	09/10/15 18:52 / SR		IC102-H_150910A	24	R109272
Hardness as CaCO3	124	mg/L		1		A2340 B	09/11/15 10:49 / abb		CALC_150914B	36	R109330
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	2.1	mg/L		0.5		A5310 C	09/15/15 09:17 / eli-c		SUB-C204123	5	C_R204123
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/14/15 14:24 / cm		FIA203-HE_150914B	21	R109340
Nitrogen, Nitrate+Nitrite as N	1.18	mg/L		0.02		E353.2	09/15/15 10:44 / cm		FIA203-HE_150915B	26	R109381
Nitrogen, Total	1.30	mg/L		0.05		A4500 N-C	09/14/15 11:12 / cm	09/11/15 13:51	FIA203-HE_150914A	39	30481
Phosphorus, Total as P	0.074	mg/L		0.003		E365.1	09/11/15 15:29 / cm	09/11/15 13:49	FIA202-HE_150911A	34	30480
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296
Arsenic	0.003	mg/L		0.001		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296
Barium	0.058	mg/L		0.003		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 17:34 / dck		ICPMS204-B_150914B	92	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 10:49 / sld		ICP2-HE_150911A	24	R109297
Cadmium	ND	mg/L		0.00003		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296
Calcium	35	mg/L		1		E200.7	09/11/15 10:49 / sld		ICP2-HE_150911A	24	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296
Copper	0.001	mg/L		0.001		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296
Iron	0.10	mg/L		0.02		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01
Lab ID: H15090199-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 18:15
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296
Magnesium	9	mg/L		1		E200.7	09/11/15 10:49 / sld		ICP2-HE_150911A	24	R109297
Manganese	0.026	mg/L		0.001		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296
Mercury	ND	mg/L		5E-06		E245.1	09/17/15 17:42 / dck	09/17/15 10:26	HGCV202-H_150917A	48	30560
Molybdenum	0.005	mg/L		0.005		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296
Potassium	3	mg/L		1		E200.7	09/11/15 10:49 / sld		ICP2-HE_150911A	24	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296
Silver	ND	mg/L		0.0002		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296
Sodium	13	mg/L		1		E200.7	09/11/15 10:49 / sld		ICP2-HE_150911A	24	R109297
Uranium	0.0035	mg/L		0.0002		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 08:12 / dck		ICPMS204-B_150911A	198	R109296
Zinc	ND	mg/L		0.008		E200.8	09/14/15 17:34 / dck		ICPMS204-B_150914B	92	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.034	mg/L		0.009		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Arsenic	0.003	mg/L		0.001		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Barium	0.057	mg/L		0.003		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 17:47 / dck	09/11/15 09:06	ICPMS204-B_150914B	97	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Cadmium	ND	mg/L		0.00003		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Calcium	34	mg/L		1		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Copper	0.005	mg/L		0.001		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Iron	0.32	mg/L		0.02		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Lead	0.0003	mg/L		0.0003		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Magnesium	8	mg/L		1		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Manganese	0.035	mg/L		0.001		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Mercury	ND	mg/L		5E-06		E245.1	09/17/15 17:46 / dck	09/17/15 10:26	HGCV202-H_150917A	49	30560
Molybdenum	0.005	mg/L		0.005		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01
Lab ID: H15090199-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 18:15
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Potassium	3	mg/L		1		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Silver	0.0004	mg/L		0.0002		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Sodium	11	mg/L		1		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Uranium	0.0037	mg/L		0.0002		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 08:15 / dck	09/11/15 09:06	ICPMS204-B_150911A	199	30478
Zinc	ND	mg/L		0.008		E200.8	09/14/15 17:47 / dck	09/11/15 09:06	ICPMS204-B_150914B	97	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A
Lab ID: H15090199-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 17:00 **DateReceived:** 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	6	mg/L		1		A2540 D	09/10/15 13:53 / SR		-124 (14410200)_150910A	5	TSS150910A
Solids, Volatile Suspended	2	mg/L		1		A2540 E	09/11/15 09:13 / SR		MISC WC_150911A	4	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	09/10/15 18:25 / SR		PHSC_101-H_150910A	55	R109235
Bicarbonate as HCO3	140	mg/L		4		A2320 B	09/10/15 18:25 / SR		PHSC_101-H_150910A	55	R109235
Chloride	18	mg/L		1		E300.0	09/10/15 19:03 / SR		IC102-H_150910A	25	R109272
Sulfate	36	mg/L		1		E300.0	09/10/15 19:03 / SR		IC102-H_150910A	25	R109272
Hardness as CaCO3	141	mg/L		1		A2340 B	09/11/15 10:53 / abb		CALC_150914B	47	R109330
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	2.3	mg/L		0.5		A5310 C	09/15/15 09:33 / eli-c		SUB-C204123	6	C_R204123
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/14/15 14:25 / cm		FIA203-HE_150914B	22	R109340
Nitrogen, Nitrate+Nitrite as N	1.13	mg/L		0.02		E353.2	09/15/15 10:46 / cm		FIA203-HE_150915B	27	R109381
Nitrogen, Total	2.5	mg/L	D	0.1		A4500 N-C	09/17/15 11:10 / cm	09/16/15 12:10	FIA203-HE_150918A	13	30537
Phosphorus, Total as P	0.086	mg/L		0.003		E365.1	09/11/15 15:33 / cm	09/11/15 13:49	FIA202-HE_150911A	37	30480
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296
Arsenic	0.005	mg/L		0.001		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296
Barium	0.053	mg/L		0.003		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 17:58 / dck		ICPMS204-B_150914B	101	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 10:53 / sld		ICP2-HE_150911A	25	R109297
Cadmium	0.00004	mg/L		0.00003		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296
Calcium	40	mg/L		1		E200.7	09/11/15 10:53 / sld		ICP2-HE_150911A	25	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296
Copper	0.002	mg/L		0.001		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296
Iron	0.09	mg/L		0.02		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A
Lab ID: H15090199-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 17:00
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296
Magnesium	10	mg/L		1		E200.7	09/11/15 10:53 / sld		ICP2-HE_150911A	25	R109297
Manganese	0.061	mg/L		0.001		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296
Mercury	ND	mg/L		5E-06		E245.1	09/17/15 17:50 / dck	09/17/15 10:26	HGCV202-H_150917A	50	30560
Molybdenum	0.007	mg/L		0.005		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296
Potassium	4	mg/L		1		E200.7	09/11/15 10:53 / sld		ICP2-HE_150911A	25	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296
Silver	ND	mg/L		0.0002		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296
Sodium	17	mg/L		1		E200.7	09/11/15 10:53 / sld		ICP2-HE_150911A	25	R109297
Uranium	0.0043	mg/L		0.0002		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 08:18 / dck		ICPMS204-B_150911A	200	R109296
Zinc	0.009	mg/L		0.008		E200.8	09/14/15 17:58 / dck		ICPMS204-B_150914B	101	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.065	mg/L		0.009		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Arsenic	0.006	mg/L		0.001		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Barium	0.055	mg/L		0.003		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:00 / dck	09/11/15 09:06	ICPMS204-B_150914B	102	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Cadmium	0.00008	mg/L		0.00003		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Calcium	40	mg/L		1		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Copper	0.005	mg/L		0.001		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Iron	0.36	mg/L		0.02		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Lead	0.0017	mg/L		0.0003		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Magnesium	10	mg/L		1		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Manganese	0.075	mg/L		0.001		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Mercury	ND	mg/L		5E-06		E245.1	09/17/15 17:53 / dck	09/17/15 10:26	HGCV202-H_150917A	51	30560
Molybdenum	0.007	mg/L		0.005		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A
Lab ID: H15090199-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 17:00
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Potassium	3	mg/L		1		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Silver	ND	mg/L		0.0002		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Sodium	15	mg/L		1		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Uranium	0.0048	mg/L		0.0002		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 08:21 / dck	09/11/15 09:06	ICPMS204-B_150911A	201	30478
Zinc	0.019	mg/L		0.008		E200.8	09/14/15 18:00 / dck	09/11/15 09:06	ICPMS204-B_150914B	102	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G
Lab ID: H15090199-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 14:15
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	2	mg/L		1		A2540 D	09/10/15 13:53 / SR		-124 (14410200)_150910A	6	TSS150910A
Solids, Volatile Suspended	2	mg/L		1		A2540 E	09/11/15 09:13 / SR		MISC WC_150911A	5	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	09/10/15 18:30 / SR		PHSC_101-H_150910A	57	R109235
Bicarbonate as HCO3	140	mg/L		4		A2320 B	09/10/15 18:30 / SR		PHSC_101-H_150910A	57	R109235
Chloride	1	mg/L		1		E300.0	09/10/15 19:14 / SR		IC102-H_150910A	26	R109272
Sulfate	28	mg/L		1		E300.0	09/10/15 19:14 / SR		IC102-H_150910A	26	R109272
Hardness as CaCO3	133	mg/L		1		A2340 B	09/11/15 10:57 / abb		CALC_150914B	58	R109330
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	1.9	mg/L		0.5		A5310 C	09/15/15 09:49 / eli-c		SUB-C204123	7	C_R204123
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/14/15 14:28 / cm		FIA203-HE_150914B	25	R109340
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.02		E353.2	09/15/15 10:47 / cm		FIA203-HE_150915B	28	R109381
Nitrogen, Total	ND	mg/L		0.05		A4500 N-C	09/17/15 11:11 / cm	09/16/15 12:10	FIA203-HE_150918A	14	30537
Phosphorus, Total as P	0.024	mg/L		0.003		E365.1	09/11/15 15:34 / cm	09/11/15 13:49	FIA202-HE_150911A	38	30480
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296
Arsenic	0.004	mg/L		0.001		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296
Barium	0.024	mg/L		0.003		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:03 / dck		ICPMS204-B_150914B	103	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 10:57 / sld		ICP2-HE_150911A	26	R109297
Cadmium	ND	mg/L		0.00003		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296
Calcium	40	mg/L		1		E200.7	09/11/15 10:57 / sld		ICP2-HE_150911A	26	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296
Copper	ND	mg/L		0.001		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296
Iron	ND	mg/L		0.02		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G
Lab ID: H15090199-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 14:15
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296
Magnesium	8	mg/L		1		E200.7	09/11/15 10:57 / sld		ICP2-HE_150911A	26	R109297
Manganese	0.002	mg/L		0.001		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296
Mercury	ND	mg/L		5E-06		E245.1	09/17/15 18:05 / dck	09/17/15 10:26	HGCV202-H_150917A	54	30560
Molybdenum	ND	mg/L		0.005		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296
Potassium	1	mg/L		1		E200.7	09/11/15 10:57 / sld		ICP2-HE_150911A	26	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296
Silver	ND	mg/L		0.0002		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296
Sodium	4	mg/L		1		E200.7	09/11/15 10:57 / sld		ICP2-HE_150911A	26	R109297
Uranium	0.0007	mg/L		0.0002		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 08:25 / dck		ICPMS204-B_150911A	202	R109296
Zinc	ND	mg/L		0.008		E200.8	09/14/15 18:03 / dck		ICPMS204-B_150914B	103	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.023	mg/L		0.009		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Arsenic	0.004	mg/L		0.001		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Barium	0.023	mg/L		0.003		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:06 / dck	09/11/15 09:06	ICPMS204-B_150914B	104	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Cadmium	ND	mg/L		0.00003		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Calcium	38	mg/L		1		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Copper	0.002	mg/L		0.001		E200.8	09/15/15 10:40 / dck	09/11/15 09:06	ICPMS204-B_150915A	22	30478
Iron	0.04	mg/L		0.02		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Lead	ND	mg/L		0.0003		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Magnesium	7	mg/L		1		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Manganese	0.005	mg/L		0.001		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Mercury	ND	mg/L		5E-06		E245.1	09/17/15 18:08 / dck	09/17/15 10:26	HGCV202-H_150917A	55	30560
Molybdenum	ND	mg/L		0.005		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G
Lab ID: H15090199-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 14:15
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Potassium	1	mg/L		1		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Silver	ND	mg/L		0.0002		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Sodium	4	mg/L		1		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Uranium	0.0007	mg/L		0.0002		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 08:28 / dck	09/11/15 09:06	ICPMS204-B_150911A	203	30478
Zinc	ND	mg/L		0.008		E200.8	09/14/15 18:06 / dck	09/11/15 09:06	ICPMS204-B_150914B	104	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01 Sediment Sieve <0.065mm
Lab ID: H15090199-004
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 18:15
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	4.1	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	1	R109505
PHYSICAL CHARACTERISTICS											
Moisture	56.2	wt%		0.2		D2974	09/29/15 09:56 / AH		DRYING OVEN 2_150928B	1	R109747
3050 EXTRACTABLE METALS											
Aluminum	24700	mg/kg-dry		7		SW6010B	09/17/15 18:17 / sld	09/16/15 07:52	ICP2-HE_150917B	82	30517
Antimony	ND	mg/kg-dry		5		SW6020	09/18/15 04:47 / dck	09/16/15 07:52	ICPMS204-B_150917A	184	30517
Arsenic	35	mg/kg-dry		5		SW6020	09/18/15 04:47 / dck	09/16/15 07:52	ICPMS204-B_150917A	184	30517
Barium	299	mg/kg-dry		5		SW6010B	09/17/15 18:17 / sld	09/16/15 07:52	ICP2-HE_150917B	82	30517
Beryllium	ND	mg/kg-dry		5		SW6010B	09/17/15 18:17 / sld	09/16/15 07:52	ICP2-HE_150917B	82	30517
Boron	11	mg/kg-dry		5		SW6020	09/18/15 12:39 / dck	09/16/15 07:52	ICPMS204-B_150917A	248	30517
Cadmium	1.8	mg/kg-dry		0.4		SW6020	09/18/15 12:39 / dck	09/16/15 07:52	ICPMS204-B_150917A	248	30517
Chromium	49	mg/kg-dry		5		SW6020	09/18/15 04:47 / dck	09/16/15 07:52	ICPMS204-B_150917A	184	30517
Cobalt	9	mg/kg-dry		5		SW6010B	09/21/15 15:21 / sld	09/16/15 07:52	ICP2-HE_150921B	31	30517
Copper	368	mg/kg-dry		5		SW6010B	09/17/15 18:17 / sld	09/16/15 07:52	ICP2-HE_150917B	82	30517
Iron	35100	mg/kg-dry		7		SW6010B	09/17/15 18:17 / sld	09/16/15 07:52	ICP2-HE_150917B	82	30517
Lead	207	mg/kg-dry		5		SW6020	09/18/15 04:47 / dck	09/16/15 07:52	ICPMS204-B_150917A	184	30517
Manganese	874	mg/kg-dry		5		SW6010B	09/17/15 18:17 / sld	09/16/15 07:52	ICP2-HE_150917B	82	30517
Molybdenum	18	mg/kg-dry		5		SW6020	09/18/15 04:47 / dck	09/16/15 07:52	ICPMS204-B_150917A	184	30517
Nickel	20	mg/kg-dry		5		SW6010B	09/17/15 18:17 / sld	09/16/15 07:52	ICP2-HE_150917B	82	30517
Selenium	ND	mg/kg-dry		5		SW6020	09/18/15 04:47 / dck	09/16/15 07:52	ICPMS204-B_150917A	184	30517
Silver	ND	mg/kg-dry		5		SW6020	09/18/15 04:47 / dck	09/16/15 07:52	ICPMS204-B_150917A	184	30517
Uranium	8	mg/kg-dry		5		SW6020	09/18/15 04:47 / dck	09/16/15 07:52	ICPMS204-B_150917A	184	30517
Vanadium	98	mg/kg-dry		2		SW6010B	09/17/15 18:17 / sld	09/16/15 07:52	ICP2-HE_150917B	82	30517
Zinc	421	mg/kg-dry		5		SW6020	09/18/15 12:39 / dck	09/16/15 07:52	ICPMS204-B_150917A	248	30517
METALS, TOTAL											
Mercury	0.20	mg/kg-dry		0.10		SW7471B	09/24/15 14:14 / rgk	09/21/15 08:49	HGCV201-H_150924B	44	30588

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01 Sediment Sieve 0.065-1mm
Lab ID: H15090199-005
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 18:15
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	57.6	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	2	R109505
PHYSICAL CHARACTERISTICS											
Moisture	19.4	wt%		0.2		D2974	09/29/15 09:56 / AH		DRYING OVEN 2_150928B	3	R109747
3050 EXTRACTABLE METALS											
Aluminum	4200	mg/kg-dry		5		SW6010B	09/17/15 19:27 / sld	09/16/15 07:52	ICP2-HE_150917B	101	30518
Antimony	ND	mg/kg-dry		5		SW6020	09/18/15 05:32 / dck	09/16/15 07:52	ICPMS204-B_150917A	198	30518
Arsenic	6	mg/kg-dry		5		SW6020	09/18/15 05:32 / dck	09/16/15 07:52	ICPMS204-B_150917A	198	30518
Barium	53	mg/kg-dry		5		SW6010B	09/17/15 19:27 / sld	09/16/15 07:52	ICP2-HE_150917B	101	30518
Beryllium	ND	mg/kg-dry		5		SW6010B	09/17/15 19:27 / sld	09/16/15 07:52	ICP2-HE_150917B	101	30518
Boron	ND	mg/kg-dry		5		SW6020	09/18/15 13:00 / dck	09/16/15 07:52	ICPMS204-B_150917A	256	30518
Cadmium	0.5	mg/kg-dry		0.2		SW6020	09/18/15 13:00 / dck	09/16/15 07:52	ICPMS204-B_150917A	256	30518
Chromium	14	mg/kg-dry		5		SW6020	09/18/15 05:32 / dck	09/16/15 07:52	ICPMS204-B_150917A	198	30518
Cobalt	ND	mg/kg-dry		5		SW6010B	09/20/15 23:18 / sld	09/16/15 07:52	ICP2-HE_150920A	78	30518
Copper	45	mg/kg-dry		5		SW6010B	09/17/15 19:27 / sld	09/16/15 07:52	ICP2-HE_150917B	101	30518
Iron	16000	mg/kg-dry		5		SW6010B	09/17/15 19:27 / sld	09/16/15 07:52	ICP2-HE_150917B	101	30518
Lead	23	mg/kg-dry		5		SW6020	09/18/15 05:32 / dck	09/16/15 07:52	ICPMS204-B_150917A	198	30518
Manganese	181	mg/kg-dry		5		SW6010B	09/17/15 19:27 / sld	09/16/15 07:52	ICP2-HE_150917B	101	30518
Molybdenum	ND	mg/kg-dry		5		SW6020	09/18/15 05:32 / dck	09/16/15 07:52	ICPMS204-B_150917A	198	30518
Nickel	ND	mg/kg-dry		5		SW6010B	09/17/15 19:27 / sld	09/16/15 07:52	ICP2-HE_150917B	101	30518
Selenium	ND	mg/kg-dry		5		SW6020	09/18/15 05:32 / dck	09/16/15 07:52	ICPMS204-B_150917A	198	30518
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 20:08 / dck	09/25/15 08:00	ICPMS204-B_150925B	177	30620
Uranium	7	mg/kg-dry		5		SW6020	09/18/15 05:32 / dck	09/16/15 07:52	ICPMS204-B_150917A	198	30518
Vanadium	46	mg/kg-dry		1		SW6010B	09/17/15 19:27 / sld	09/16/15 07:52	ICP2-HE_150917B	101	30518
Zinc	257	mg/kg-dry		5		SW6010B	09/20/15 23:18 / sld	09/16/15 07:52	ICP2-HE_150920A	78	30518
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/24/15 14:17 / rgk	09/21/15 08:49	HGCV201-H_150924B	45	30588

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01 Sediment Sieve 1-2mm
Lab ID: H15090199-006
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 18:15
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	14.8	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	3	R109505
PHYSICAL CHARACTERISTICS											
Moisture	17.0	wt%		0.2		D2974	09/29/15 09:56 / AH		DRYING OVEN 2_150928B	4	R109747
3050 EXTRACTABLE METALS											
Aluminum	4290	mg/kg-dry		5		SW6010B	09/17/15 20:12 / sld	09/16/15 07:52	ICP2-HE_150917B	113	30519
Antimony	ND	mg/kg-dry		5		SW6020	09/18/15 06:17 / dck	09/16/15 07:52	ICPMS204-B_150917A	212	30519
Arsenic	ND	mg/kg-dry		5		SW6020	09/18/15 06:17 / dck	09/16/15 07:52	ICPMS204-B_150917A	212	30519
Barium	61	mg/kg-dry		5		SW6010B	09/17/15 20:12 / sld	09/16/15 07:52	ICP2-HE_150917B	113	30519
Beryllium	ND	mg/kg-dry		5		SW6010B	09/17/15 20:12 / sld	09/16/15 07:52	ICP2-HE_150917B	113	30519
Boron	ND	mg/kg-dry		5		SW6020	09/18/15 13:15 / dck	09/16/15 07:52	ICPMS204-B_150917A	261	30519
Cadmium	0.3	mg/kg-dry		0.2		SW6020	09/18/15 13:15 / dck	09/16/15 07:52	ICPMS204-B_150917A	261	30519
Chromium	9	mg/kg-dry		5		SW6020	09/18/15 06:17 / dck	09/16/15 07:52	ICPMS204-B_150917A	212	30519
Cobalt	ND	mg/kg-dry		5		SW6020	09/18/15 13:15 / dck	09/16/15 07:52	ICPMS204-B_150917A	261	30519
Copper	25	mg/kg-dry		5		SW6010B	09/17/15 20:12 / sld	09/16/15 07:52	ICP2-HE_150917B	113	30519
Iron	5790	mg/kg-dry		5		SW6010B	09/17/15 20:12 / sld	09/16/15 07:52	ICP2-HE_150917B	113	30519
Lead	14	mg/kg-dry		5		SW6020	09/18/15 06:17 / dck	09/16/15 07:52	ICPMS204-B_150917A	212	30519
Manganese	241	mg/kg-dry		5		SW6010B	09/17/15 20:12 / sld	09/16/15 07:52	ICP2-HE_150917B	113	30519
Molybdenum	ND	mg/kg-dry		5		SW6020	09/18/15 06:17 / dck	09/16/15 07:52	ICPMS204-B_150917A	212	30519
Nickel	ND	mg/kg-dry		5		SW6010B	09/17/15 20:12 / sld	09/16/15 07:52	ICP2-HE_150917B	113	30519
Selenium	ND	mg/kg-dry		5		SW6020	09/18/15 06:17 / dck	09/16/15 07:52	ICPMS204-B_150917A	212	30519
Silver	ND	mg/kg-dry		5		SW6020	09/18/15 06:17 / dck	09/16/15 07:52	ICPMS204-B_150917A	212	30519
Uranium	ND	mg/kg-dry		5		SW6020	09/18/15 06:17 / dck	09/16/15 07:52	ICPMS204-B_150917A	212	30519
Vanadium	18	mg/kg-dry		1		SW6010B	09/17/15 20:12 / sld	09/16/15 07:52	ICP2-HE_150917B	113	30519
Zinc	97	mg/kg-dry		5		SW6010B	09/17/15 20:12 / sld	09/16/15 07:52	ICP2-HE_150917B	113	30519
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/24/15 14:19 / rgk	09/21/15 08:49	HGCV201-H_150924B	46	30588

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A Sediment Sieve <0.065mm
Lab ID: H15090199-007
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 17:00
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	5.2	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	4	R109505
PHYSICAL CHARACTERISTICS											
Moisture	53.6	wt%		0.2		D2974	09/29/15 09:56 / AH		DRYING OVEN 2_150928B	5	R109747
3050 EXTRACTABLE METALS											
Aluminum	20700	mg/kg-dry		7		SW6010B	09/17/15 18:20 / sld	09/16/15 07:52	ICP2-HE_150917B	83	30517
Antimony	ND	mg/kg-dry		5		SW6020	09/18/15 04:50 / dck	09/16/15 07:52	ICPMS204-B_150917A	185	30517
Arsenic	358	mg/kg-dry		5		SW6020	09/18/15 04:50 / dck	09/16/15 07:52	ICPMS204-B_150917A	185	30517
Barium	306	mg/kg-dry		5		SW6010B	09/17/15 18:20 / sld	09/16/15 07:52	ICP2-HE_150917B	83	30517
Beryllium	ND	mg/kg-dry		5		SW6010B	09/17/15 18:20 / sld	09/16/15 07:52	ICP2-HE_150917B	83	30517
Boron	11	mg/kg-dry		5		SW6020	09/18/15 12:41 / dck	09/16/15 07:52	ICPMS204-B_150917A	249	30517
Cadmium	14.1	mg/kg-dry		0.4		SW6020	09/18/15 12:41 / dck	09/16/15 07:52	ICPMS204-B_150917A	249	30517
Chromium	67	mg/kg-dry		5		SW6020	09/18/15 04:50 / dck	09/16/15 07:52	ICPMS204-B_150917A	185	30517
Cobalt	13	mg/kg-dry		5		SW6010B	09/21/15 15:25 / sld	09/16/15 07:52	ICP2-HE_150921B	32	30517
Copper	2780	mg/kg-dry		5		SW6010B	09/17/15 18:20 / sld	09/16/15 07:52	ICP2-HE_150917B	83	30517
Iron	42000	mg/kg-dry		6		SW6010B	09/17/15 18:20 / sld	09/16/15 07:52	ICP2-HE_150917B	83	30517
Lead	647	mg/kg-dry		5		SW6020	09/18/15 04:50 / dck	09/16/15 07:52	ICPMS204-B_150917A	185	30517
Manganese	1930	mg/kg-dry		5		SW6010B	09/17/15 18:20 / sld	09/16/15 07:52	ICP2-HE_150917B	83	30517
Molybdenum	25	mg/kg-dry		5		SW6020	09/18/15 04:50 / dck	09/16/15 07:52	ICPMS204-B_150917A	185	30517
Nickel	28	mg/kg-dry		5		SW6010B	09/17/15 18:20 / sld	09/16/15 07:52	ICP2-HE_150917B	83	30517
Selenium	ND	mg/kg-dry		5		SW6020	09/18/15 04:50 / dck	09/16/15 07:52	ICPMS204-B_150917A	185	30517
Silver	10	mg/kg-dry		5		SW6020	09/18/15 04:50 / dck	09/16/15 07:52	ICPMS204-B_150917A	185	30517
Uranium	22	mg/kg-dry		5		SW6020	09/18/15 04:50 / dck	09/16/15 07:52	ICPMS204-B_150917A	185	30517
Vanadium	97	mg/kg-dry		2		SW6010B	09/17/15 18:20 / sld	09/16/15 07:52	ICP2-HE_150917B	83	30517
Zinc	4640	mg/kg-dry		5		SW6020	09/18/15 12:41 / dck	09/16/15 07:52	ICPMS204-B_150917A	249	30517
METALS, TOTAL											
Mercury	1.2	mg/kg-dry		0.21		SW7471B	09/24/15 14:41 / rgk	09/21/15 08:49	HGCV201-H_150924B	54	30588

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A Sediment Sieve 0.065-1mm
Lab ID: H15090199-008
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 17:00
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	33.6	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	5	R109505
PHYSICAL CHARACTERISTICS											
Moisture	22.1	wt%		0.2		D2974	09/29/15 09:56 / AH		DRYING OVEN 2_150928B	6	R109747
3050 EXTRACTABLE METALS											
Aluminum	4280	mg/kg-dry		5		SW6010B	09/17/15 19:31 / sld	09/16/15 07:52	ICP2-HE_150917B	102	30518
Antimony	ND	mg/kg-dry		5		SW6020	09/18/15 05:35 / dck	09/16/15 07:52	ICPMS204-B_150917A	199	30518
Arsenic	187	mg/kg-dry		5		SW6020	09/18/15 05:35 / dck	09/16/15 07:52	ICPMS204-B_150917A	199	30518
Barium	65	mg/kg-dry		5		SW6010B	09/17/15 19:31 / sld	09/16/15 07:52	ICP2-HE_150917B	102	30518
Beryllium	ND	mg/kg-dry		5		SW6010B	09/17/15 19:31 / sld	09/16/15 07:52	ICP2-HE_150917B	102	30518
Boron	ND	mg/kg-dry		5		SW6020	09/18/15 13:03 / dck	09/16/15 07:52	ICPMS204-B_150917A	257	30518
Cadmium	2.9	mg/kg-dry		0.2		SW6020	09/18/15 13:03 / dck	09/16/15 07:52	ICPMS204-B_150917A	257	30518
Chromium	65	mg/kg-dry		5		SW6020	09/18/15 05:35 / dck	09/16/15 07:52	ICPMS204-B_150917A	199	30518
Cobalt	28	mg/kg-dry		5		SW6010B	09/20/15 23:22 / sld	09/16/15 07:52	ICP2-HE_150920A	79	30518
Copper	1430	mg/kg-dry		5		SW6010B	09/17/15 19:31 / sld	09/16/15 07:52	ICP2-HE_150917B	102	30518
Iron	179000	mg/kg-dry	D	20		SW6010B	09/20/15 23:55 / sld	09/16/15 07:52	ICP2-HE_150920A	88	30518
Lead	361	mg/kg-dry		5		SW6020	09/18/15 05:35 / dck	09/16/15 07:52	ICPMS204-B_150917A	199	30518
Manganese	1110	mg/kg-dry		5		SW6010B	09/17/15 19:31 / sld	09/16/15 07:52	ICP2-HE_150917B	102	30518
Molybdenum	16	mg/kg-dry		5		SW6020	09/18/15 05:35 / dck	09/16/15 07:52	ICPMS204-B_150917A	199	30518
Nickel	26	mg/kg-dry		5		SW6010B	09/17/15 19:31 / sld	09/16/15 07:52	ICP2-HE_150917B	102	30518
Selenium	ND	mg/kg-dry		5		SW6020	09/18/15 05:35 / dck	09/16/15 07:52	ICPMS204-B_150917A	199	30518
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 20:11 / dck	09/25/15 08:00	ICPMS204-B_150925B	178	30620
Uranium	15	mg/kg-dry		5		SW6020	09/18/15 05:35 / dck	09/16/15 07:52	ICPMS204-B_150917A	199	30518
Vanadium	210	mg/kg-dry		1		SW6010B	09/17/15 19:31 / sld	09/16/15 07:52	ICP2-HE_150917B	102	30518
Zinc	1290	mg/kg-dry		5		SW6010B	09/20/15 23:22 / sld	09/16/15 07:52	ICP2-HE_150920A	79	30518
METALS, TOTAL											
Mercury	0.13	mg/kg-dry		0.10		SW7471B	09/24/15 14:24 / rgk	09/21/15 08:49	HGCV201-H_150924B	48	30588

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A Sediment Sieve 1-2mm
Lab ID: H15090199-009
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 17:00
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	11.7	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	6	R109505
PHYSICAL CHARACTERISTICS											
Moisture	17.8	wt%		0.2		D2974	09/29/15 09:56 / AH		DRYING OVEN 2_150928B	7	R109747
3050 EXTRACTABLE METALS											
Aluminum	4100	mg/kg-dry		5		SW6010B	09/17/15 20:16 / sld	09/16/15 07:52	ICP2-HE_150917B	114	30519
Antimony	ND	mg/kg-dry		5		SW6020	09/18/15 06:20 / dck	09/16/15 07:52	ICPMS204-B_150917A	213	30519
Arsenic	121	mg/kg-dry		5		SW6020	09/18/15 06:20 / dck	09/16/15 07:52	ICPMS204-B_150917A	213	30519
Barium	182	mg/kg-dry		5		SW6010B	09/17/15 20:16 / sld	09/16/15 07:52	ICP2-HE_150917B	114	30519
Beryllium	ND	mg/kg-dry		5		SW6010B	09/17/15 20:16 / sld	09/16/15 07:52	ICP2-HE_150917B	114	30519
Boron	ND	mg/kg-dry		5		SW6020	09/18/15 13:18 / dck	09/16/15 07:52	ICPMS204-B_150917A	262	30519
Cadmium	1.3	mg/kg-dry		0.2		SW6020	09/18/15 13:18 / dck	09/16/15 07:52	ICPMS204-B_150917A	262	30519
Chromium	7	mg/kg-dry		5		SW6020	09/18/15 06:20 / dck	09/16/15 07:52	ICPMS204-B_150917A	213	30519
Cobalt	ND	mg/kg-dry		5		SW6020	09/18/15 13:18 / dck	09/16/15 07:52	ICPMS204-B_150917A	262	30519
Copper	1630	mg/kg-dry		5		SW6010B	09/17/15 20:16 / sld	09/16/15 07:52	ICP2-HE_150917B	114	30519
Iron	14500	mg/kg-dry		5		SW6010B	09/17/15 20:16 / sld	09/16/15 07:52	ICP2-HE_150917B	114	30519
Lead	114	mg/kg-dry		5		SW6020	09/18/15 06:20 / dck	09/16/15 07:52	ICPMS204-B_150917A	213	30519
Manganese	7940	mg/kg-dry		5		SW6010B	09/17/15 20:16 / sld	09/16/15 07:52	ICP2-HE_150917B	114	30519
Molybdenum	ND	mg/kg-dry		5		SW6020	09/18/15 06:20 / dck	09/16/15 07:52	ICPMS204-B_150917A	213	30519
Nickel	5	mg/kg-dry		5		SW6010B	09/17/15 20:16 / sld	09/16/15 07:52	ICP2-HE_150917B	114	30519
Selenium	ND	mg/kg-dry		5		SW6020	09/18/15 06:20 / dck	09/16/15 07:52	ICPMS204-B_150917A	213	30519
Silver	ND	mg/kg-dry		5		SW6020	09/18/15 06:20 / dck	09/16/15 07:52	ICPMS204-B_150917A	213	30519
Uranium	ND	mg/kg-dry		5		SW6020	09/18/15 06:20 / dck	09/16/15 07:52	ICPMS204-B_150917A	213	30519
Vanadium	24	mg/kg-dry		1		SW6010B	09/17/15 20:16 / sld	09/16/15 07:52	ICP2-HE_150917B	114	30519
Zinc	703	mg/kg-dry		5		SW6010B	09/17/15 20:16 / sld	09/16/15 07:52	ICP2-HE_150917B	114	30519
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/24/15 14:27 / rgk	09/21/15 08:49	HGCV201-H_150924B	49	30588

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G Sediment Sieve <0.065mm
Lab ID: H15090199-010
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 14:15
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	8.4	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	7	R109505
PHYSICAL CHARACTERISTICS											
Moisture	69.0	wt%		0.2		D2974	09/29/15 09:56 / AH		DRYING OVEN 2_150928B	8	R109747
3050 EXTRACTABLE METALS											
Aluminum	31000	mg/kg-dry		10		SW6010B	09/17/15 18:58 / sld	09/16/15 07:52	ICP2-HE_150917B	93	30517
Antimony	ND	mg/kg-dry		5		SW6020	09/18/15 04:53 / dck	09/16/15 07:52	ICPMS204-B_150917A	186	30517
Arsenic	59	mg/kg-dry		5		SW6020	09/18/15 04:53 / dck	09/16/15 07:52	ICPMS204-B_150917A	186	30517
Barium	285	mg/kg-dry		5		SW6010B	09/17/15 18:58 / sld	09/16/15 07:52	ICP2-HE_150917B	93	30517
Beryllium	ND	mg/kg-dry		5		SW6010B	09/17/15 18:58 / sld	09/16/15 07:52	ICP2-HE_150917B	93	30517
Boron	11	mg/kg-dry		7		SW6020	09/18/15 12:44 / dck	09/16/15 07:52	ICPMS204-B_150917A	250	30517
Cadmium	1.8	mg/kg-dry		0.5		SW6020	09/18/15 12:44 / dck	09/16/15 07:52	ICPMS204-B_150917A	250	30517
Chromium	62	mg/kg-dry		5		SW6020	09/18/15 04:53 / dck	09/16/15 07:52	ICPMS204-B_150917A	186	30517
Cobalt	9	mg/kg-dry		5		SW6010B	09/21/15 15:28 / sld	09/16/15 07:52	ICP2-HE_150921B	33	30517
Copper	135	mg/kg-dry		5		SW6010B	09/17/15 18:58 / sld	09/16/15 07:52	ICP2-HE_150917B	93	30517
Iron	26800	mg/kg-dry		10		SW6010B	09/17/15 18:58 / sld	09/16/15 07:52	ICP2-HE_150917B	93	30517
Lead	162	mg/kg-dry		5		SW6020	09/18/15 04:53 / dck	09/16/15 07:52	ICPMS204-B_150917A	186	30517
Manganese	817	mg/kg-dry		5		SW6010B	09/17/15 18:58 / sld	09/16/15 07:52	ICP2-HE_150917B	93	30517
Molybdenum	ND	mg/kg-dry		5		SW6020	09/18/15 04:53 / dck	09/16/15 07:52	ICPMS204-B_150917A	186	30517
Nickel	31	mg/kg-dry		5		SW6010B	09/17/15 18:58 / sld	09/16/15 07:52	ICP2-HE_150917B	93	30517
Selenium	ND	mg/kg-dry		5		SW6020	09/18/15 04:53 / dck	09/16/15 07:52	ICPMS204-B_150917A	186	30517
Silver	ND	mg/kg-dry		5		SW6020	09/18/15 04:53 / dck	09/16/15 07:52	ICPMS204-B_150917A	186	30517
Uranium	6	mg/kg-dry		5		SW6020	09/18/15 04:53 / dck	09/16/15 07:52	ICPMS204-B_150917A	186	30517
Vanadium	61	mg/kg-dry		2		SW6010B	09/17/15 18:58 / sld	09/16/15 07:52	ICP2-HE_150917B	93	30517
Zinc	176	mg/kg-dry		5		SW6020	09/18/15 12:44 / dck	09/16/15 07:52	ICPMS204-B_150917A	250	30517
METALS, TOTAL											
Mercury	0.27	mg/kg-dry		0.10		SW7471B	09/24/15 14:30 / rgk	09/21/15 08:49	HGCV201-H_150924B	50	30588

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G Sediment Sieve 0.065-1mm
Lab ID: H15090199-011
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 14:15
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	61.4	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	8	R109505
PHYSICAL CHARACTERISTICS											
Moisture	31.9	wt%		0.2		D2974	09/29/15 09:56 / AH		DRYING OVEN 2_150928B	9	R109747
3050 EXTRACTABLE METALS											
Aluminum	8590	mg/kg-dry		5		SW6010B	09/17/15 19:42 / sld	09/16/15 07:52	ICP2-HE_150917B	105	30518
Antimony	ND	mg/kg-dry		5		SW6020	09/18/15 05:39 / dck	09/16/15 07:52	ICPMS204-B_150917A	200	30518
Arsenic	23	mg/kg-dry		5		SW6020	09/18/15 05:39 / dck	09/16/15 07:52	ICPMS204-B_150917A	200	30518
Barium	119	mg/kg-dry		5		SW6010B	09/17/15 19:42 / sld	09/16/15 07:52	ICP2-HE_150917B	105	30518
Beryllium	ND	mg/kg-dry		5		SW6010B	09/17/15 19:42 / sld	09/16/15 07:52	ICP2-HE_150917B	105	30518
Boron	ND	mg/kg-dry		5		SW6020	09/18/15 13:05 / dck	09/16/15 07:52	ICPMS204-B_150917A	258	30518
Cadmium	ND	mg/kg-dry		0.2		SW6020	09/18/15 13:05 / dck	09/16/15 07:52	ICPMS204-B_150917A	258	30518
Chromium	15	mg/kg-dry		5		SW6020	09/18/15 05:39 / dck	09/16/15 07:52	ICPMS204-B_150917A	200	30518
Cobalt	ND	mg/kg-dry		5		SW6010B	09/20/15 23:29 / sld	09/16/15 07:52	ICP2-HE_150920A	81	30518
Copper	27	mg/kg-dry		5		SW6010B	09/17/15 19:42 / sld	09/16/15 07:52	ICP2-HE_150917B	105	30518
Iron	14800	mg/kg-dry		5		SW6010B	09/17/15 19:42 / sld	09/16/15 07:52	ICP2-HE_150917B	105	30518
Lead	9	mg/kg-dry		5		SW6020	09/18/15 05:39 / dck	09/16/15 07:52	ICPMS204-B_150917A	200	30518
Manganese	134	mg/kg-dry		5		SW6010B	09/17/15 19:42 / sld	09/16/15 07:52	ICP2-HE_150917B	105	30518
Molybdenum	ND	mg/kg-dry		5		SW6020	09/18/15 05:39 / dck	09/16/15 07:52	ICPMS204-B_150917A	200	30518
Nickel	8	mg/kg-dry		5		SW6010B	09/17/15 19:42 / sld	09/16/15 07:52	ICP2-HE_150917B	105	30518
Selenium	ND	mg/kg-dry		5		SW6020	09/18/15 05:39 / dck	09/16/15 07:52	ICPMS204-B_150917A	200	30518
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 20:14 / dck	09/25/15 08:00	ICPMS204-B_150925B	179	30620
Uranium	ND	mg/kg-dry		5		SW6020	09/18/15 05:39 / dck	09/16/15 07:52	ICPMS204-B_150917A	200	30518
Vanadium	39	mg/kg-dry		1		SW6010B	09/17/15 19:42 / sld	09/16/15 07:52	ICP2-HE_150917B	105	30518
Zinc	36	mg/kg-dry		5		SW6010B	09/20/15 23:29 / sld	09/16/15 07:52	ICP2-HE_150920A	81	30518
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/24/15 14:32 / rgk	09/21/15 08:49	HGCV201-H_150924B	51	30588

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G Sediment Sieve 1-2mm
Lab ID: H15090199-012
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 14:15
DateReceived: 09/10/15
Report Date: 10/05/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	9.5	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	9	R109505
PHYSICAL CHARACTERISTICS											
Moisture	19.3	wt%		0.2		D2974	09/29/15 09:56 / AH		RYING OVEN 2_150928B	10	R109747
3050 EXTRACTABLE METALS											
Aluminum	9580	mg/kg-dry		5		SW6010B	09/17/15 20:27 / sld	09/16/15 07:52	ICP2-HE_150917B	117	30519
Antimony	ND	mg/kg-dry		5		SW6020	09/18/15 06:24 / dck	09/16/15 07:52	ICPMS204-B_150917A	214	30519
Arsenic	20	mg/kg-dry		5		SW6020	09/18/15 06:24 / dck	09/16/15 07:52	ICPMS204-B_150917A	214	30519
Barium	128	mg/kg-dry		5		SW6010B	09/17/15 20:27 / sld	09/16/15 07:52	ICP2-HE_150917B	117	30519
Beryllium	ND	mg/kg-dry		5		SW6010B	09/17/15 20:27 / sld	09/16/15 07:52	ICP2-HE_150917B	117	30519
Boron	ND	mg/kg-dry		5		SW6020	09/18/15 13:20 / dck	09/16/15 07:52	ICPMS204-B_150917A	263	30519
Cadmium	ND	mg/kg-dry		0.2		SW6020	09/18/15 13:20 / dck	09/16/15 07:52	ICPMS204-B_150917A	263	30519
Chromium	14	mg/kg-dry		5		SW6020	09/18/15 06:24 / dck	09/16/15 07:52	ICPMS204-B_150917A	214	30519
Cobalt	ND	mg/kg-dry		5		SW6020	09/18/15 13:20 / dck	09/16/15 07:52	ICPMS204-B_150917A	263	30519
Copper	13	mg/kg-dry		5		SW6010B	09/17/15 20:27 / sld	09/16/15 07:52	ICP2-HE_150917B	117	30519
Iron	11900	mg/kg-dry		5		SW6010B	09/17/15 20:27 / sld	09/16/15 07:52	ICP2-HE_150917B	117	30519
Lead	ND	mg/kg-dry		5		SW6020	09/18/15 06:24 / dck	09/16/15 07:52	ICPMS204-B_150917A	214	30519
Manganese	136	mg/kg-dry		5		SW6010B	09/17/15 20:27 / sld	09/16/15 07:52	ICP2-HE_150917B	117	30519
Molybdenum	ND	mg/kg-dry		5		SW6020	09/18/15 06:24 / dck	09/16/15 07:52	ICPMS204-B_150917A	214	30519
Nickel	8	mg/kg-dry		5		SW6010B	09/17/15 20:27 / sld	09/16/15 07:52	ICP2-HE_150917B	117	30519
Selenium	ND	mg/kg-dry		5		SW6020	09/18/15 06:24 / dck	09/16/15 07:52	ICPMS204-B_150917A	214	30519
Silver	ND	mg/kg-dry		5		SW6020	09/18/15 06:24 / dck	09/16/15 07:52	ICPMS204-B_150917A	214	30519
Uranium	ND	mg/kg-dry		5		SW6020	09/18/15 06:24 / dck	09/16/15 07:52	ICPMS204-B_150917A	214	30519
Vanadium	23	mg/kg-dry		1		SW6010B	09/17/15 20:27 / sld	09/16/15 07:52	ICP2-HE_150917B	117	30519
Zinc	29	mg/kg-dry		5		SW6010B	09/17/15 20:27 / sld	09/16/15 07:52	ICP2-HE_150917B	117	30519
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/24/15 14:43 / rgk	09/21/15 08:49	HGCV201-H_150924B	55	30588

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150911A-SLDS-VSS-W

Date: *05-Oct-15*

Run ID :Run Order: **MISC WC_150911A: 1** SampType: **Method Blank** Lab ID: **MBLK1_1508131** Method: **A2540 E**

Analysis Date: **09/11/15 09:12** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	ND	1									

Associated samples: **H15090199-001A, H15090199-002A, H15090199-003A**

Run ID :Run Order: **MISC WC_150911A: 3** SampType: **Sample Duplicate** Lab ID: **H15090199-001ADUP** Method: **A2540 E**

Analysis Date: **09/11/15 09:13** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	2	10		0				3.2		30	

Associated samples: **H15090199-001A, H15090199-002A, H15090199-003A**

Run ID :Run Order: **MISC WC_150911A: 14** SampType: **Sample Duplicate** Lab ID: **H15090206-008ADUP** Method: **A2540 E**

Analysis Date: **09/11/15 09:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	5	10		0				4.6		30	

Associated samples: **H15090199-001A, H15090199-002A, H15090199-003A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150917wa

Date: *05-Oct-15*

Run ID :Run Order: **HGCV202-H_150917A: 17** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **09/17/15 13:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000214	0.00010	0.0002	0	**107**	90	110				

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **HGCV202-H_150917A: 18** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1** Method: **E245.1**

Analysis Date: **09/17/15 13:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000203	0.00010	0.0002	0	**101**	95	105				

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **HGCV202-H_150917A: 44** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E245.1**

Analysis Date: **09/17/15 17:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000218	0.00010	0.0002	0	**109**	90	110				

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150924sa-B

Date: *05-Oct-15*

Run ID :Run Order: **HGCV201-H_150924B: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **09/24/15 12:34** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00095	0.50	0.001	0	95	90	110				

Associated samples: **H15090199-004A, H15090199-005A, H15090199-006A, H15090199-007A, H15090199-008A, H15090199-009A, H15090199-010A, H15090199-011A, H15090199-012A**

Run ID :Run Order: **HGCV201-H_150924B: 40** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **09/24/15 14:04** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	102	90	110				

Associated samples: **H15090199-004A, H15090199-005A, H15090199-006A, H15090199-007A, H15090199-008A, H15090199-009A, H15090199-010A, H15090199-011A, H15090199-012A**

Run ID :Run Order: **HGCV201-H_150924B: 52** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **09/24/15 14:35** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0026	0.50	0.0025	0	104	90	110				

Associated samples: **H15090199-004A, H15090199-005A, H15090199-006A, H15090199-007A, H15090199-008A, H15090199-009A, H15090199-010A, H15090199-011A, H15090199-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30478

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 72** SampType: **Method Blank** Lab ID: **MB-30478** Method: **E200.8**

Analysis Date: **09/12/15 01:29** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	0.00010	6E-05									
Arsenic	0.0001	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	0.005	0.002									
Cadmium	ND	1E-05									
Calcium	ND	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	ND	0.0002									
Iron	ND	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	6E-05	4E-05									
Nickel	7E-05	3E-05									
Potassium	ND	0.02									
Selenium	ND	0.0004									
Silver	0.0001	5E-05									
Sodium	0.02	0.004									
Uranium	ND	5E-05									
Vanadium	0.0007	0.0001									
Zinc	0.002	0.002									

Associated samples: **H15090199-001C, H15090199-002C, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150911A: 73** SampType: **Laboratory Control Sample** Lab ID: **LCS-30478** Method: **E200.8**

Analysis Date: **09/12/15 01:32** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.35	0.030	2.5	0	**94**	85	115				
Antimony	0.533	0.0010	0.5	0.0000957	**107**	85	115				
Arsenic	0.532	0.0010	0.5	0.0001237	**106**	85	115				
Barium	0.518	0.050	0.5	0	**104**	85	115				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30478

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 73** SampType: **Laboratory Control Sample** Lab ID: **LCS-30478** Method: **E200.8**

Analysis Date: **09/12/15 01:32** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.252	0.0010	0.25	0	101	85	115				
Boron	0.504	0.050	0.5	0.004642	100	85	115				
Cadmium	0.262	0.0010	0.25	0	105	85	115				
Calcium	26.2	1.0	25	0	105	85	115				
Chromium	0.509	0.0050	0.5	0	102	85	115				
Cobalt	0.508	0.0050	0.5	0	102	85	115				
Copper	0.502	0.0050	0.5	0	100	85	115				
Iron	2.56	0.020	2.5	0	102	85	115				
Lead	0.510	0.0010	0.5	0	102	85	115				
Magnesium	26.0	1.0	25	0	104	85	115				
Manganese	2.54	0.0010	2.5	0	102	85	115				
Molybdenum	0.527	0.0010	0.5	0.0000567	105	85	115				
Nickel	0.504	0.0050	0.5	0.0000663	101	85	115				
Potassium	26.0	1.0	25	0	104	85	115				
Selenium	0.535	0.0010	0.5	0	107	85	115				
Silver	0.0505	0.0010	0.05	0.0001194	101	85	115				
Sodium	26.3	1.0	25	0.01681	105	85	115				
Uranium	0.496	0.00030	0.5	0	99	85	115				
Vanadium	0.508	0.010	0.5	0.0006646	101	85	115				
Zinc	0.521	0.010	0.5	0.00243	104	85	115				

Associated samples: **H15090199-001C, H15090199-002C, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150911A: 189** SampType: **Sample Matrix Spike** Lab ID: **H15090191-001CMS3** Method: **E200.8**

Analysis Date: **09/12/15 07:43** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.31	0.030	2.5	0.02177	91	70	130				
Antimony	0.521	0.0010	0.5	0.0002828	104	70	130				
Arsenic	0.551	0.0010	0.5	0.009979	108	70	130				
Barium	0.525	0.050	0.5	0.006189	104	70	130				
Beryllium	0.216	0.0010	0.25	0	86	70	130				
Boron	0.452	0.050	0.5	0.008375	89	70	130				
Cadmium	0.245	0.0010	0.25	0.0000247	98	70	130				
Calcium	138	1.0	25	108.6		70	130				A

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30478

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 189** SampType: **Sample Matrix Spike** Lab ID: **H15090191-001CMS3** Method: **E200.8**

Analysis Date: **09/12/15 07:43** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.502	0.0050	0.5	0.0001709	100	70	130				
Cobalt	0.506	0.0050	0.5	0.003814	100	70	130				
Copper	0.489	0.0050	0.5	0.001859	97	70	130				
Iron	2.53	0.020	2.5	0.02838	100	70	130				
Lead	0.499	0.0010	0.5	0.000051	100	70	130				
Magnesium	34.8	1.0	25	10.71	96	70	130				
Manganese	2.48	0.0010	2.5	0.0007571	99	70	130				
Molybdenum	0.531	0.0010	0.5	0.0002321	106	70	130				
Nickel	0.497	0.0050	0.5	0.0007283	99	70	130				
Potassium	27.8	1.0	25	1.932	103	70	130				
Selenium	0.489	0.0010	0.5	0.005176	97	70	130				
Silver	0.0490	0.0010	0.05	0.0001694	98	70	130				
Sodium	30.3	1.0	25	6.145	97	70	130				
Uranium	0.494	0.00030	0.5	0.002098	98	70	130				
Vanadium	0.515	0.010	0.5	0.001829	103	70	130				
Zinc	0.464	0.010	0.5	0.002336	92	70	130				

Associated samples: **H15090199-001C, H15090199-002C, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150911A: 190** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090191-001CMSD3** Method: **E200.8**

Analysis Date: **09/12/15 07:46** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.28	0.030	2.5	0.02177	90	70	130	2.308	1.4	20	
Antimony	0.513	0.0010	0.5	0.0002828	103	70	130	0.521	1.6	20	
Arsenic	0.541	0.0010	0.5	0.009979	106	70	130	0.5508	1.9	20	
Barium	0.517	0.050	0.5	0.006189	102	70	130	0.5254	1.7	20	
Beryllium	0.212	0.0010	0.25	0	85	70	130	0.2157	1.7	20	
Boron	0.466	0.050	0.5	0.008375	91	70	130	0.4516	3.1	20	
Cadmium	0.241	0.0010	0.25	0.0000247	97	70	130	0.2449	1.5	20	
Calcium	135	1.0	25	108.6		70	130	137.7	1.8	20	A
Chromium	0.497	0.0050	0.5	0.0001709	99	70	130	0.5024	1.1	20	
Cobalt	0.498	0.0050	0.5	0.003814	99	70	130	0.5056	1.5	20	
Copper	0.484	0.0050	0.5	0.001859	96	70	130	0.4887	0.9	20	
Iron	2.51	0.020	2.5	0.02838	99	70	130	2.531	1.0	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30478

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 190** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090191-001CMSD3** Method: **E200.8**

Analysis Date: **09/12/15 07:46** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.497	0.0010	0.5	0.000051	99	70	130	0.4994	0.4	20	
Magnesium	34.3	1.0	25	10.71	94	70	130	34.76	1.4	20	
Manganese	2.46	0.0010	2.5	0.0007571	98	70	130	2.479	0.9	20	
Molybdenum	0.523	0.0010	0.5	0.0002321	105	70	130	0.5308	1.4	20	
Nickel	0.492	0.0050	0.5	0.0007283	98	70	130	0.4972	1.2	20	
Potassium	27.7	1.0	25	1.932	103	70	130	27.79	0.3	20	
Selenium	0.486	0.0010	0.5	0.005176	96	70	130	0.4894	0.7	20	
Silver	0.0484	0.0010	0.05	0.0001694	96	70	130	0.04898	1.3	20	
Sodium	30.0	1.0	25	6.145	96	70	130	30.32	0.9	20	
Uranium	0.494	0.00030	0.5	0.002098	98	70	130	0.4942	0.0	20	
Vanadium	0.506	0.010	0.5	0.001829	101	70	130	0.5149	1.7	20	
Zinc	0.464	0.010	0.5	0.002336	92	70	130	0.4645	0.2	20	

Associated samples: **H15090199-001C, H15090199-002C, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150914B: 34** SampType: **Method Blank** Lab ID: **MB-30478** Method: **E200.8**

Analysis Date: **09/14/15 13:34** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	0.00010	6E-05									
Arsenic	0.0001	6E-05									
Barium	0.0002	0.0001									
Beryllium	ND	0.0003									
Boron	0.006	0.002									
Cadmium	ND	1E-05									
Calcium	0.010	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	ND	0.0002									
Iron	0.003	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	ND	4E-05									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30478

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150914B: 34** SampType: **Method Blank** Lab ID: **MB-30478** Method: **E200.8**

Analysis Date: **09/14/15 13:34** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	ND	3E-05									
Potassium	ND	0.02									
Selenium	ND	0.0004									
Silver	7E-05	5E-05									
Sodium	0.04	0.004									
Uranium	ND	5E-05									
Vanadium	0.004	0.0001									
Zinc	ND	0.002									

Associated samples: **H15090199-001C, H15090199-002C, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150915A: 21** SampType: **Method Blank** Lab ID: **MB-30478** Method: **E200.8**

Analysis Date: **09/15/15 10:37** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	0.0002	6E-05									
Arsenic	0.0001	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	0.003	0.002									
Cadmium	ND	1E-05									
Calcium	ND	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	ND	0.0002									
Iron	ND	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	4E-05	4E-05									
Nickel	5E-05	3E-05									
Potassium	ND	0.02									
Selenium	ND	0.0004									
Silver	0.0003	5E-05									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30478

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150915A: 21** SampType: **Method Blank** Lab ID: **MB-30478** Method: **E200.8**

Analysis Date: **09/15/15 10:37** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	0.01	0.004									
Uranium	ND	5E-05									
Vanadium	0.004	0.0001									
Zinc	ND	0.002									

Associated samples: **H15090199-001C, H15090199-002C, H15090199-003C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30480

Date: *05-Oct-15*

Run ID :Run Order: **FIA202-HE_150911A: 12** SampType: **Laboratory Control Sample** Lab ID: **LCS-30480** Method: **E365.1**
Analysis Date: **09/11/15 15:07** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.413	0.010	0.4	0	103	90	110				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA202-HE_150911A: 13** SampType: **Method Blank** Lab ID: **MB-30480** Method: **E365.1**
Analysis Date: **09/11/15 15:08** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	ND	0.001									

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA202-HE_150911A: 35** SampType: **Sample Matrix Spike** Lab ID: **H15090199-001DMS** Method: **E365.1**
Analysis Date: **09/11/15 15:31** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.278	0.010	0.2	0.07424	102	90	110				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA202-HE_150911A: 36** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-001DMSD** Method: **E365.1**
Analysis Date: **09/11/15 15:32** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.288	0.010	0.2	0.07424	107	90	110	0.2777	3.7	20	

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30481

Date: *05-Oct-15*

Run ID :Run Order: **FIA203-HE_150914A: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-30481** Method: **A4500 N-C**
Analysis Date: **09/14/15 10:39** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	6.35	0.15	6.37	0.009774	**100**	90	110				

Associated samples: **H15090199-001A**

Run ID :Run Order: **FIA203-HE_150914A: 12** SampType: **Method Blank** Lab ID: **MB-30481** Method: **A4500 N-C**
Analysis Date: **09/14/15 10:40** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.010	0.005									

Associated samples: **H15090199-001A**

Run ID :Run Order: **FIA203-HE_150914A: 29** SampType: **Sample Matrix Spike** Lab ID: **H15090186-010AMS** Method: **A4500 N-C**
Analysis Date: **09/14/15 11:01** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.996	0.10	1	0.1008	**90**	90	110				

Associated samples: **H15090199-001A**

Run ID :Run Order: **FIA203-HE_150914A: 30** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090186-010AMSD** Method: **A4500 N-C**
Analysis Date: **09/14/15 11:02** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.977	0.10	1	0.1008	**88**	90	110	0.996	**1.9**	20	S

Associated samples: **H15090199-001A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30517

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150917B: 79** SampType: **Method Blank** Lab ID: **MB-30517** Method: **SW6010B**

Analysis Date: **09/17/15 18:06** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1	0.3									
Barium	0.1	0.02									
Beryllium	ND	0.009									
Cobalt	ND	0.1									
Copper	ND	0.2									
Iron	6	0.6									
Manganese	0.09	0.02									
Nickel	ND	0.07									
Vanadium	ND	0.1									

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Run ID :Run Order: **ICP2-HE_150917B: 80** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30517** Method: **SW6010B**

Analysis Date: **09/17/15 18:09** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	277	5.0	252.5	1.436	**109**	80	120				
Barium	53.9	1.0	50.51	0.1333	**106**	80	120				
Beryllium	27.7	1.0	25.25	0	**110**	80	120				
Cobalt	52.1	1.0	50.51	0	**103**	80	120				
Copper	53.0	1.0	50.51	0	**105**	80	120				
Iron	272	5.0	252.5	5.526	**106**	80	120				
Manganese	254	1.0	252.5	0.08687	**100**	80	120				
Nickel	51.2	1.0	50.51	0	**101**	80	120				
Vanadium	52.5	1.0	50.51	0	**104**	80	120				

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Run ID :Run Order: **ICP2-HE_150917B: 81** SampType: **Laboratory Control Sample** Lab ID: **LCS-30517** Method: **SW6010B**

Analysis Date: **09/17/15 18:13** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9850	5.0	9830	1.436	**100**	46.3	130.2				
Barium	184	1.0	187	0.1333	**98**	78.6	112.8				
Beryllium	88.5	1.0	83.6	0	**106**	76.2	108				
Cobalt	109	1.0	108	0	**101**	74.2	105.6				
Copper	128	1.1	137	0	**94**	76.6	108.8				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30517

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150917B: 81** SampType: **Laboratory Control Sample** Lab ID: **LCS-30517** Method: **SW6010B**

Analysis Date: **09/17/15 18:13** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	15900	5.0	16300	5.526	97	51.7	131.9				
Manganese	429	1.0	434	0.08687	99	81.1	116.6				
Nickel	80.6	1.0	86.2	0	94	72.3	105				
Vanadium	111	1.0	114	0	97	67	107				

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Run ID :Run Order: **ICP2-HE_150917B: 95** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090199-010APDS** Method: **SW6010B**

Analysis Date: **09/17/15 19:05** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	35400	11	4192	31010		75	125				A
Barium	1060	1.0	838.5	285.5	93	75	125				
Beryllium	392	1.0	419.2	1.594	93	75	125				
Cobalt	789	1.9	838.5	8.008	93	75	125				
Copper	918	3.7	838.5	135.5	93	75	125				
Iron	31000	9.9	4192	26760		75	125				A
Manganese	4700	1.0	4192	817	93	75	125				
Nickel	806	1.2	838.5	30.86	92	75	125				
Vanadium	843	2.5	838.5	61.15	93	75	125				

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Run ID :Run Order: **ICP2-HE_150917B: 96** SampType: **Sample Matrix Spike** Lab ID: **H15090199-010AMS** Method: **SW6010B**

Analysis Date: **09/17/15 19:09** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	37800	11	822.3	31010		75	125				A
Barium	471	1.0	164.5	285.5	113	75	125				
Beryllium	85.6	1.0	82.23	1.594	102	75	125				
Cobalt	174	1.9	164.5	8.008	101	75	125				
Copper	299	3.6	164.5	135.5	100	75	125				
Iron	29300	9.7	822.3	26760		75	125				A
Manganese	1650	1.0	822.3	817	101	75	125				
Nickel	194	1.2	164.5	30.86	99	75	125				
Vanadium	237	2.4	164.5	61.15	107	75	125				

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30517

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150917B: 97** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-010AMSD** Method: **SW6010B**

Analysis Date: **09/17/15 19:13** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	36600	11	814	31010		75	125	37810	3.3	20	A
Barium	460	1.0	162.8	285.5	107	75	125	471	2.4	20	
Beryllium	84.7	1.0	81.4	1.594	102	75	125	85.56	1.0	20	
Cobalt	176	1.8	162.8	8.008	103	75	125	173.7	1.4	20	
Copper	297	3.6	162.8	135.5	99	75	125	299.4	0.8	20	
Iron	29100	9.6	814	26760		75	125	29300	0.7	20	A
Manganese	1640	1.0	814	817	101	75	125	1650	0.6	20	
Nickel	196	1.1	162.8	30.86	101	75	125	194.4	0.6	20	
Vanadium	235	2.4	162.8	61.15	107	75	125	236.8	0.9	20	

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Run ID :Run Order: **ICP2-HE_150921B: 29** SampType: **Method Blank** Lab ID: **MB-30517** Method: **SW6010B**

Analysis Date: **09/21/15 15:14** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1	0.7									
Barium	0.2	0.02									
Beryllium	ND	0.009									
Cobalt	ND	0.1									
Copper	ND	0.2									
Iron	6	0.6									
Manganese	0.1	0.02									
Nickel	ND	0.07									
Vanadium	0.3	0.1									

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Run ID :Run Order: **ICP2-HE_150921B: 30** SampType: **Laboratory Control Sample** Lab ID: **LCS-30517** Method: **SW6010B**

Analysis Date: **09/21/15 15:17** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	8810	5.0	9830	1.18	90	46.3	130.2				
Barium	169	1.0	187	0.2465	90	78.6	112.8				
Beryllium	77.8	1.0	83.6	0	93	76.2	108				
Cobalt	102	1.0	108	0	95	74.2	105.6				
Copper	119	1.0	137	0	87	76.6	108.8				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30517

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150921B: 30** SampType: **Laboratory Control Sample** Lab ID: **LCS-30517** Method: **SW6010B**

Analysis Date: **09/21/15 15:17** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	14400	5.0	16300	6.33	89	51.7	131.9				
Manganese	404	1.0	434	0.1268	93	81.1	116.6				
Nickel	73.9	1.0	86.2	0	86	72.3	105				
Vanadium	103	1.0	114	0.2793	90	67	107				

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Run ID :Run Order: **ICP2-HE_150921B: 35** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090199-010APDS** Method: **SW6010B**

Analysis Date: **09/21/15 15:36** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	31900	5.0	1677	29790		75	125				A
Barium	580	1.0	335.4	270.1	92	75	125				
Beryllium	154	1.0	167.7	1.721	91	75	125				
Cobalt	315	1.0	335.4	8.908	91	75	125				
Copper	437	1.5	335.4	129.2	92	75	125				
Iron	27300	5.0	1677	25910		75	125				A
Manganese	2300	1.0	1677	794.7	90	75	125				
Nickel	323	1.0	335.4	31.54	87	75	125				
Vanadium	365	1.0	335.4	62.59	90	75	125				

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Run ID :Run Order: **ICP2-HE_150921B: 36** SampType: **Sample Matrix Spike** Lab ID: **H15090199-010AMS** Method: **SW6010B**

Analysis Date: **09/21/15 15:39** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	36500	5.0	822.3	29790		75	125				A
Barium	453	1.0	164.5	270.1	111	75	125				
Beryllium	81.8	1.0	82.23	1.721	97	75	125				
Cobalt	168	1.0	164.5	8.908	97	75	125				
Copper	285	1.4	164.5	129.2	95	75	125				
Iron	27800	5.0	822.3	25910		75	125				A
Manganese	1580	1.0	822.3	794.7	95	75	125				
Nickel	185	1.0	164.5	31.54	94	75	125				
Vanadium	229	1.0	164.5	62.59	101	75	125				

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30517

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150921B: 37** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-010AMSD** Method: **SW6010B**

Analysis Date: **09/21/15 15:43** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	35100	5.0	814	29790		75	125	36480	3.9	20	A
Barium	443	1.0	162.8	270.1	106	75	125	452.9	2.2	20	
Beryllium	79.9	1.0	81.4	1.721	96	75	125	81.77	2.3	20	
Cobalt	164	1.0	162.8	8.908	95	75	125	168.5	2.8	20	
Copper	282	1.4	162.8	129.2	94	75	125	285.3	1.2	20	
Iron	27100	5.0	814	25910		75	125	27770	2.3	20	A
Manganese	1550	1.0	814	794.7	92	75	125	1576	1.9	20	
Nickel	179	1.0	162.8	31.54	90	75	125	185.5	3.7	20	
Vanadium	223	1.0	162.8	62.59	98	75	125	229	2.9	20	

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30517

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150917A: 180** SampType: **Method Blank** Lab ID: **MB-30517** Method: **SW6020**

Analysis Date: **09/18/15 04:34** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.4									
Arsenic	ND	0.2									
Boron	ND	10									
Cadmium	ND	0.8									
Chromium	0.3	0.2									
Lead	ND	0.5									
Molybdenum	ND	0.5									
Selenium	ND	0.8									
Silver	ND	0.3									
Uranium	ND	0.3									
Zinc	6	4									

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Run ID :Run Order: **ICPMS204-B_150917A: 182** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30517** Method: **SW6020**

Analysis Date: **09/18/15 04:40** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	54.7	1.0	50.51	0	**108**	80	120				
Arsenic	53.7	1.0	50.51	0	**106**	80	120				
Boron	58.4	11	50.51	0	**116**	80	120				
Cadmium	27.1	1.0	25.25	0	**107**	80	120				
Chromium	54.6	1.0	50.51	0.2742	**108**	80	120				
Lead	53.3	1.0	50.51	0	**105**	80	120				
Molybdenum	54.0	1.0	50.51	0	**107**	80	120				
Selenium	50.6	1.0	50.51	0	**100**	80	120				
Silver	27.4	1.0	25.25	0	**109**	80	120				
Uranium	52.9	1.0	50.51	0	**105**	80	120				
Zinc	58.8	3.5	50.51	6.278	**104**	80	120				

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Run ID :Run Order: **ICPMS204-B_150917A: 188** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090199-010APDS** Method: **SW6020**

Analysis Date: **09/18/15 05:00** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	8440	1.2	8140	0	**104**	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30517

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150917A: 188** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090199-010APDS** Method: **SW6020**

Analysis Date: **09/18/15 05:00** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	7890	1.0	8140	59.25	96	75	125				
Boron	8020	35	8140	0	99	75	125				
Cadmium	4020	2.7	4070	0	99	75	125				
Chromium	8170	1.0	8140	62.11	100	75	125				
Lead	8230	1.6	8140	161.8	99	75	125				
Molybdenum	8490	1.5	8140	2.198	104	75	125				
Selenium	7340	2.5	8140	3.387	90	75	125				
Silver	3430	1.0	4070	1.217	84	75	125				
Uranium	8270	1.0	8140	6.071	102	75	125				
Zinc	7850	11	8140	271.3	93	75	125				

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Run ID :Run Order: **ICPMS204-B_150917A: 189** SampType: **Sample Matrix Spike** Lab ID: **H15090199-010AMS** Method: **SW6020**

Analysis Date: **09/18/15 05:03** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	102	1.2	164.5	0	62	75	125				S
Arsenic	227	1.0	164.5	59.25	102	75	125				
Boron	276	36	164.5	0	168	75	125				S
Cadmium	92.4	2.8	82.23	0	112	75	125				
Chromium	244	1.0	164.5	62.11	111	75	125				
Lead	318	1.6	164.5	161.8	95	75	125				
Molybdenum	186	1.5	164.5	2.198	112	75	125				
Selenium	175	2.5	164.5	3.387	105	75	125				
Silver	101	1.0	82.23	1.217	121	75	125				
Uranium	183	1.0	164.5	6.071	108	75	125				
Zinc	376	12	164.5	271.3	64	75	125				S

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Run ID :Run Order: **ICPMS204-B_150917A: 190** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-010AMSD** Method: **SW6020**

Analysis Date: **09/18/15 05:06** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	82.6	1.2	162.8	0	51	75	125	101.6	21	20	SR
Arsenic	224	1.0	162.8	59.25	101	75	125	226.5	1.0	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30517

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150917A: 190** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-010AMSD** Method: **SW6020**

Analysis Date: **09/18/15 05:06** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	231	35	162.8	0	142	75	125	275.8	17	20	S
Cadmium	89.9	2.7	81.4	0	111	75	125	92.42	2.7	20	
Chromium	237	1.0	162.8	62.11	108	75	125	244.4	3.0	20	
Lead	317	1.6	162.8	161.8	95	75	125	318.1	0.3	20	
Molybdenum	175	1.5	162.8	2.198	106	75	125	185.9	6.3	20	
Selenium	170	2.5	162.8	3.387	102	75	125	175.5	3.3	20	
Silver	93.0	1.0	81.4	1.217	113	75	125	101.1	8.3	20	
Uranium	175	1.0	162.8	6.071	104	75	125	183.2	4.5	20	
Zinc	372	11	162.8	271.3	62	75	125	376.3	1.1	20	S

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Run ID :Run Order: **ICPMS204-B_150917A: 247** SampType: **Laboratory Control Sample** Lab ID: **LCS-30517** Method: **SW6020**

Analysis Date: **09/18/15 12:36** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	59.2	1.0	240	0	25	0	92.9				
Arsenic	173	1.0	196	0.1259	88	71.4	105.1				
Boron	113	2.2	129	0	88	59.5	106.2				
Cadmium	100	1.0	99	0	101	73.9	106.1				
Chromium	118	1.0	117	0.152	101	73.5	108.5				
Lead	106	1.0	105	0	101	74.4	108.6				
Molybdenum	122	1.0	127	0	96	66.5	103.1				
Selenium	196	1.0	205	0.2287	96	71.2	110.2				
Silver	43.0	1.0	42.1	0	102	70.8	111.9				
Uranium	99.9	1.0	99.9	0	100	80.1	120.1				
Zinc	250	1.0	231	1.625	108	75.3	111.7				

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30518

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150917B: 98** SampType: **Method Blank** Lab ID: **MB-30518** Method: **SW6010B**

Analysis Date: **09/17/15 19:16** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.8	0.7									
Barium	0.1	0.02									
Beryllium	ND	0.009									
Cobalt	ND	0.1									
Copper	0.4	0.2									
Iron	5	0.6									
Manganese	0.04	0.02									
Nickel	ND	0.07									
Vanadium	ND	0.1									
Zinc	0.5	0.09									

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICP2-HE_150917B: 99** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30518** Method: **SW6010B**

Analysis Date: **09/17/15 19:20** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	260	5.0	255.1	0.7818	**102**	80	120				
Barium	51.5	1.0	51.02	0.1187	**101**	80	120				
Beryllium	25.9	1.0	25.51	0	**101**	80	120				
Cobalt	49.6	1.0	51.02	0	**97**	80	120				
Copper	51.3	1.0	51.02	0.3768	**100**	80	120				
Iron	257	5.0	255.1	4.697	**99**	80	120				
Manganese	253	1.0	255.1	0.0404	**99**	80	120				
Nickel	49.3	1.0	51.02	0	**97**	80	120				
Vanadium	50.6	1.0	51.02	0	**99**	80	120				
Zinc	50.0	1.0	51.02	0.4949	**97**	80	120				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICP2-HE_150917B: 107** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090199-011APDS** Method: **SW6010B**

Analysis Date: **09/17/15 19:50** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	10600	5.0	1890	8592		75	125				A
Barium	471	1.0	378.1	118.6	**93**	75	125				
Beryllium	179	1.0	189	0.3693	**95**	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30518

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150917B: 107** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090199-011APDS** Method: **SW6010B**

Analysis Date: **09/17/15 19:50** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt	360	1.0	378.1	3.257	94	75	125				
Copper	384	1.7	378.1	26.5	94	75	125				
Iron	16600	5.0	1890	14750		75	125				A
Manganese	1920	1.0	1890	134.3	95	75	125				
Nickel	361	1.0	378.1	8.312	93	75	125				
Vanadium	394	1.1	378.1	38.66	94	75	125				
Zinc	403	1.0	378.1	40.42	96	75	125				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICP2-HE_150917B: 108** SampType: **Sample Matrix Spike** Lab ID: **H15090199-011AMS** Method: **SW6010B**

Analysis Date: **09/17/15 19:53** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	11100	5.0	370.8	8592		75	125				A
Barium	231	1.0	74.15	118.6	151	75	125				S
Beryllium	37.9	1.0	37.08	0.3693	101	75	125				
Cobalt	77.2	1.0	74.15	3.257	100	75	125				
Copper	96.5	1.6	74.15	26.5	94	75	125				
Iron	15600	5.0	370.8	14750		75	125				A
Manganese	549	1.0	370.8	134.3	112	75	125				
Nickel	80.7	1.0	74.15	8.312	98	75	125				
Vanadium	113	1.1	74.15	38.66	100	75	125				
Zinc	109	1.0	74.15	40.42	93	75	125				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICP2-HE_150917B: 109** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-011AMSD** Method: **SW6010B**

Analysis Date: **09/17/15 19:57** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	11000	5.0	359.9	8592		75	125	11100	1.4	20	A
Barium	212	1.0	71.97	118.6	129	75	125	230.8	8.7	20	S
Beryllium	37.6	1.0	35.99	0.3693	104	75	125	37.95	0.9	20	
Cobalt	75.3	1.0	71.97	3.257	100	75	125	77.23	2.6	20	
Copper	110	1.6	71.97	26.5	117	75	125	96.55	13	20	
Iron	17000	5.0	359.9	14750		75	125	15640	8.5	20	A

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30518

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150917B: 109** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-011AMSD** Method: **SW6010B**

Analysis Date: **09/17/15 19:57** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	524	1.0	359.9	134.3	108	75	125	549.5	4.7	20	
Nickel	78.6	1.0	71.97	8.312	98	75	125	80.7	2.6	20	
Vanadium	114	1.1	71.97	38.66	104	75	125	112.8	0.9	20	
Zinc	139	1.0	71.97	40.42	137	75	125	109	24	20	SR

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICP2-HE_150920A: 66** SampType: **Method Blank** Lab ID: **MB-30518** Method: **SW6010B**

Analysis Date: **09/20/15 22:33** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1	0.3									
Barium	0.4	0.02									
Beryllium	0.01	0.009									
Cobalt	ND	0.1									
Copper	ND	0.2									
Iron	5	0.6									
Manganese	0.1	0.02									
Nickel	ND	0.07									
Vanadium	ND	0.1									
Zinc	0.6	0.09									

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICP2-HE_150920A: 77** SampType: **Laboratory Control Sample** Lab ID: **LCS-30518** Method: **SW6010B**

Analysis Date: **09/20/15 23:15** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9210	5.0	9830	1.339	94	46.3	130.2				
Barium	168	1.0	187	0.3545	90	78.6	112.8				
Beryllium	77.0	1.0	83.6	0.01061	92	76.2	108				
Cobalt	98.4	1.0	108	0	91	74.2	105.6				
Copper	121	1.0	137	0	88	76.6	108.8				
Iron	15000	5.0	16300	5.485	92	51.7	131.9				
Manganese	407	1.0	434	0.1066	94	81.1	116.6				
Nickel	75.6	1.0	86.2	0	88	72.3	105				
Vanadium	104	1.0	114	0	91	67	107				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30518

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150920A: 77** SampType: **Laboratory Control Sample** Lab ID: **LCS-30518** Method: **SW6010B**

Analysis Date: **09/20/15 23:15** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	232	1.0	231	0.6399	100	75.3	111.7				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICP2-HE_150920A: 83** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090199-011APDS** Method: **SW6010B**

Analysis Date: **09/20/15 23:37** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	22800	5.0	1890	8295		75	125				A
Barium	637	1.0	378.1	113.7	138	75	125				S
Beryllium	173	1.0	189	0.4016	91	75	125				
Cobalt	345	1.0	378.1	3.718	90	75	125				
Copper	412	1.7	378.1	24.15	103	75	125				
Iron	36500	5.0	1890	13930		75	125				A
Manganese	2000	1.0	1890	124.3	99	75	125				
Nickel	359	1.0	378.1	7.605	93	75	125				
Vanadium	428	1.1	378.1	34.53	104	75	125				
Zinc	433	1.0	378.1	36.07	105	75	125				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICP2-HE_150920A: 84** SampType: **Sample Matrix Spike** Lab ID: **H15090199-011AMS** Method: **SW6010B**

Analysis Date: **09/20/15 23:40** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	10600	5.0	370.8	8295		75	125				A
Barium	219	1.0	74.15	113.7	141	75	125				S
Beryllium	35.4	1.0	37.08	0.4016	94	75	125				
Cobalt	71.3	1.0	74.15	3.718	91	75	125				
Copper	91.0	1.0	74.15	24.15	90	75	125				
Iron	14600	5.0	370.8	13930		75	125				A
Manganese	503	1.0	370.8	124.3	102	75	125				
Nickel	77.2	1.0	74.15	7.605	94	75	125				
Vanadium	106	1.0	74.15	34.53	96	75	125				
Zinc	101	1.0	74.15	36.07	88	75	125				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30518

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150920A: 85** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-011AMSD** Method: **SW6010B**

Analysis Date: **09/20/15 23:44** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	10300	5.0	359.9	8295		75	125	10600	2.5	20	A
Barium	198	1.0	71.97	113.7	117	75	125	218.5	9.8	20	
Beryllium	34.9	1.0	35.99	0.4016	96	75	125	35.42	1.6	20	
Cobalt	69.6	1.0	71.97	3.718	92	75	125	71.31	2.4	20	
Copper	102	1.0	71.97	24.15	109	75	125	91.01	12	20	
Iron	15800	5.0	359.9	13930		75	125	14570	8.1	20	A
Manganese	478	1.0	359.9	124.3	98	75	125	502.8	5.2	20	
Nickel	75.5	1.0	71.97	7.605	94	75	125	77.17	2.2	20	
Vanadium	105	1.0	71.97	34.53	98	75	125	106	1.1	20	
Zinc	132	1.0	71.97	36.07	133	75	125	101.2	26	20	SR

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30518

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150917A: 194** SampType: **Method Blank** Lab ID: **MB-30518** Method: **SW6020**

Analysis Date: **09/18/15 05:19** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.6	0.4									
Arsenic	0.4	0.2									
Boron	ND	10									
Cadmium	ND	0.8									
Chromium	0.5	0.2									
Lead	ND	0.5									
Molybdenum	ND	0.5									
Selenium	ND	0.8									
Uranium	ND	0.3									

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICPMS204-B_150917A: 196** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30518** Method: **SW6020**

Analysis Date: **09/18/15 05:25** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	54.6	1.0	51.02	0.5884	**106**	80	120				
Arsenic	51.9	1.0	51.02	0.3553	**101**	80	120				
Boron	55.4	11	51.02	0	**109**	80	120				
Cadmium	27.1	1.0	25.51	0	**106**	80	120				
Chromium	53.7	1.0	51.02	0.525	**104**	80	120				
Lead	52.4	1.0	51.02	0	**103**	80	120				
Molybdenum	53.9	1.0	51.02	0	**106**	80	120				
Selenium	49.8	1.0	51.02	0	**98**	80	120				
Uranium	52.0	1.0	51.02	0	**102**	80	120				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICPMS204-B_150917A: 202** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090199-011APDS** Method: **SW6020**

Analysis Date: **09/18/15 05:45** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	3850	1.0	3671	0	**105**	75	125				
Arsenic	3590	1.0	3671	23.4	**97**	75	125				
Boron	3720	16	3671	0	**101**	75	125				
Cadmium	1870	1.2	1835	0	**102**	75	125				
Chromium	3760	1.0	3671	15.49	**102**	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30518

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150917A: 202** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090199-011APDS** Method: **SW6020**

Analysis Date: **09/18/15 05:45** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	3640	1.0	3671	9.408	99	75	125				
Molybdenum	3960	1.0	3671	0	108	75	125				
Selenium	3360	1.1	3671	0	92	75	125				
Uranium	3740	1.0	3671	1.287	102	75	125				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICPMS204-B_150917A: 203** SampType: **Sample Matrix Spike** Lab ID: **H15090199-011AMS** Method: **SW6020**

Analysis Date: **09/18/15 05:48** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	61.0	1.0	74.15	0	82	75	125				
Arsenic	108	1.0	74.15	23.4	114	75	125				
Boron	118	16	74.15	0	160	75	125				S
Cadmium	40.3	1.2	37.08	0	109	75	125				
Chromium	95.0	1.0	74.15	15.49	107	75	125				
Lead	84.1	1.0	74.15	9.408	101	75	125				
Molybdenum	83.6	1.0	74.15	0	113	75	125				
Selenium	75.0	1.1	74.15	0	101	75	125				
Uranium	79.6	1.0	74.15	1.287	106	75	125				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICPMS204-B_150917A: 204** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-011AMSD** Method: **SW6020**

Analysis Date: **09/18/15 05:51** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	49.0	1.0	71.97	0	68	75	125	61.03	22	20	SR
Arsenic	108	1.0	71.97	23.4	118	75	125	107.7	0.6	20	
Boron	103	16	71.97	0	143	75	125	118.3	14	20	S
Cadmium	39.3	1.2	35.99	0	109	75	125	40.34	2.6	20	
Chromium	94.1	1.0	71.97	15.49	109	75	125	94.99	0.9	20	
Lead	85.3	1.0	71.97	9.408	105	75	125	84.05	1.4	20	
Molybdenum	78.4	1.0	71.97	0	109	75	125	83.61	6.4	20	
Selenium	72.9	1.1	71.97	0	101	75	125	75.04	2.8	20	
Uranium	76.0	1.0	71.97	1.287	104	75	125	79.61	4.6	20	

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30518

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150917A: 255** SampType: **Laboratory Control Sample** Lab ID: **LCS-30518** Method: **SW6020**

Analysis Date: **09/18/15 12:57** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	59.8	1.0	240	0	**25**	0	92.9				
Arsenic	180	1.0	196	0.1605	**92**	71.4	105.1				
Boron	120	2.2	129	0	**93**	59.5	106.2				
Cadmium	102	1.0	99	0	**103**	73.9	106.1				
Chromium	124	1.0	117	0.1718	**106**	73.5	108.5				
Lead	111	1.0	105	0.09687	**105**	74.4	108.6				
Molybdenum	127	1.0	127	0	**100**	66.5	103.1				
Selenium	202	1.0	205	0.1939	**98**	71.2	110.2				
Uranium	106	1.0	99.9	0	**106**	80.1	120.1				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30519

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150917B: 110** SampType: **Method Blank** Lab ID: **MB-30519** Method: **SW6010B**

Analysis Date: **09/17/15 20:01** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.9	0.6									
Barium	0.05	0.02									
Beryllium	ND	0.008									
Copper	ND	0.2									
Iron	10	0.6									
Manganese	0.1	0.02									
Nickel	ND	0.07									
Vanadium	0.2	0.1									
Zinc	0.5	0.09									

Associated samples: **H15090199-006A, H15090199-009A, H15090199-012A**

Run ID :Run Order: **ICP2-HE_150917B: 111** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30519** Method: **SW6010B**

Analysis Date: **09/17/15 20:05** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	265	5.0	255.1	0.8951	**104**	80	120				
Barium	52.2	1.0	51.02	0.04757	**102**	80	120				
Beryllium	26.7	1.0	25.51	0	**105**	80	120				
Copper	52.0	1.0	51.02	0	**102**	80	120				
Iron	267	5.0	255.1	14.68	**99**	80	120				
Manganese	264	1.0	255.1	0.1296	**104**	80	120				
Nickel	52.6	1.0	51.02	0	**103**	80	120				
Vanadium	52.8	1.0	51.02	0.2214	**103**	80	120				
Zinc	52.9	1.0	51.02	0.5354	**103**	80	120				

Associated samples: **H15090199-006A, H15090199-009A, H15090199-012A**

Run ID :Run Order: **ICP2-HE_150917B: 112** SampType: **Laboratory Control Sample** Lab ID: **LCS-30519** Method: **SW6010B**

Analysis Date: **09/17/15 20:08** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9420	5.0	9830	0.8951	**96**	46.3	130.2				
Barium	171	1.0	187	0.04757	**91**	78.6	112.8				
Beryllium	82.6	1.0	83.6	0	**99**	76.2	108				
Copper	125	1.1	137	0	**91**	76.6	108.8				
Iron	15800	5.0	16300	14.68	**97**	51.7	131.9				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30519

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150917B: 112** SampType: **Laboratory Control Sample** Lab ID: **LCS-30519** Method: **SW6010B**

Analysis Date: **09/17/15 20:08** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	433	1.0	434	0.1296	100	81.1	116.6				
Nickel	79.6	1.0	86.2	0	92	72.3	105				
Vanadium	109	1.0	114	0.2214	95	67	107				
Zinc	245	1.0	231	0.5354	106	75.3	111.7				

Associated samples: **H15090199-006A, H15090199-009A, H15090199-012A**

Run ID :Run Order: **ICP2-HE_150917B: 119** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090199-012APDS** Method: **SW6010B**

Analysis Date: **09/17/15 20:34** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	11200	5.0	1564	9580		75	125				A
Barium	419	1.0	312.8	128.3	93	75	125				
Beryllium	146	1.0	156.4	0.3389	93	75	125				
Copper	305	1.4	312.8	13.02	93	75	125				
Iron	13200	5.0	1564	11860		75	125				A
Manganese	1600	1.0	1564	135.7	94	75	125				
Nickel	298	1.0	312.8	8.44	93	75	125				
Vanadium	314	1.0	312.8	23.12	93	75	125				
Zinc	323	1.0	312.8	29.38	94	75	125				

Associated samples: **H15090199-006A, H15090199-009A, H15090199-012A**

Run ID :Run Order: **ICP2-HE_150917B: 120** SampType: **Sample Matrix Spike** Lab ID: **H15090199-012AMS** Method: **SW6010B**

Analysis Date: **09/17/15 20:38** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9690	5.0	309.7	9580		75	125				A
Barium	200	1.0	61.94	128.3	116	75	125				
Beryllium	32.4	1.0	30.97	0.3389	104	75	125				
Copper	80.1	1.4	61.94	13.02	108	75	125				
Iron	10600	5.0	309.7	11860		75	125				A
Manganese	450	1.0	309.7	135.7	101	75	125				
Nickel	72.6	1.0	61.94	8.44	104	75	125				
Vanadium	86.6	1.0	61.94	23.12	103	75	125				
Zinc	91.7	1.0	61.94	29.38	101	75	125				

Associated samples: **H15090199-006A, H15090199-009A, H15090199-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30519

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150917B: 121** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-012AMSD** Method: **SW6010B**

Analysis Date: **09/17/15 20:42** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	11100	5.0	309.7	9580		75	125	9688	14	20	A
Barium	173	1.0	61.94	128.3	72	75	125	200.1	15	20	S
Beryllium	32.9	1.0	30.97	0.3389	105	75	125	32.43	1.4	20	
Copper	113	1.4	61.94	13.02	162	75	125	80.09	34	20	SR
Iron	12000	5.0	309.7	11860		75	125	10580	13	20	A
Manganese	474	1.0	309.7	135.7	109	75	125	449.9	5.2	20	
Nickel	72.3	1.0	61.94	8.44	103	75	125	72.65	0.5	20	
Vanadium	91.0	1.0	61.94	23.12	110	75	125	86.63	4.9	20	
Zinc	93.1	1.0	61.94	29.38	103	75	125	91.69	1.6	20	

Associated samples: **H15090199-006A, H15090199-009A, H15090199-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30519

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150917A: 208** SampType: **Method Blank** Lab ID: **MB-30519** Method: **SW6020**

Analysis Date: **09/18/15 06:04** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.5	0.4									
Arsenic	ND	0.2									
Boron	ND	10									
Cadmium	ND	0.8									
Chromium	0.3	0.2									
Cobalt	ND	0.2									
Lead	ND	0.5									
Molybdenum	ND	0.5									
Selenium	ND	0.8									
Silver	0.4	0.3									
Uranium	ND	0.3									

Associated samples: **H15090199-006A, H15090199-009A, H15090199-012A**

Run ID :Run Order: **ICPMS204-B_150917A: 210** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30519** Method: **SW6020**

Analysis Date: **09/18/15 06:11** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	55.0	1.0	51.02	0.5005	**107**	80	120				
Arsenic	52.2	1.0	51.02	0	**102**	80	120				
Boron	58.3	11	51.02	0	**114**	80	120				
Cadmium	27.7	1.0	25.51	0	**109**	80	120				
Chromium	55.1	1.0	51.02	0.2524	**107**	80	120				
Cobalt	54.7	1.0	51.02	0	**107**	80	120				
Lead	52.9	1.0	51.02	0	**104**	80	120				
Molybdenum	55.1	1.0	51.02	0	**108**	80	120				
Selenium	49.8	1.0	51.02	0	**98**	80	120				
Silver	27.5	1.0	25.51	0.3837	**106**	80	120				
Uranium	52.8	1.0	51.02	0	**104**	80	120				

Associated samples: **H15090199-006A, H15090199-009A, H15090199-012A**

Run ID :Run Order: **ICPMS204-B_150917A: 216** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090199-012APDS** Method: **SW6020**

Analysis Date: **09/18/15 06:30** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	3210	1.0	3036	0	**106**	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30519

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150917A: 216** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090199-012APDS** Method: **SW6020**

Analysis Date: **09/18/15 06:30** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	2960	1.0	3036	20.13	97	75	125				
Boron	3060	13	3036	0	101	75	125				
Cadmium	1530	1.0	1518	0	101	75	125				
Chromium	3100	1.0	3036	14.12	102	75	125				
Cobalt	3030	1.0	3036	4.126	100	75	125				
Lead	3050	1.0	3036	4.491	100	75	125				
Molybdenum	3290	1.0	3036	0	108	75	125				
Selenium	2760	1.0	3036	0	91	75	125				
Silver	992	1.0	1518	0	65	75	125				S
Uranium	3160	1.0	3036	0.8083	104	75	125				

Associated samples: **H15090199-006A, H15090199-009A, H15090199-012A**

Run ID :Run Order: **ICPMS204-B_150917A: 217** SampType: **Sample Matrix Spike** Lab ID: **H15090199-012AMS** Method: **SW6020**

Analysis Date: **09/18/15 06:33** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	57.1	1.0	61.94	0	92	75	125				
Arsenic	73.6	1.0	61.94	20.13	86	75	125				
Boron	99.4	13	61.94	0	161	75	125				S
Cadmium	34.0	1.0	30.97	0	110	75	125				
Chromium	80.4	1.0	61.94	14.12	107	75	125				
Cobalt	70.9	1.0	61.94	4.126	108	75	125				
Lead	70.7	1.0	61.94	4.491	107	75	125				
Molybdenum	70.6	1.0	61.94	0	114	75	125				
Selenium	63.5	1.0	61.94	0	103	75	125				
Silver	37.9	1.0	30.97	0	122	75	125				
Uranium	67.9	1.0	61.94	0.8083	108	75	125				

Associated samples: **H15090199-006A, H15090199-009A, H15090199-012A**

Run ID :Run Order: **ICPMS204-B_150917A: 218** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-012AMSD** Method: **SW6020**

Analysis Date: **09/18/15 06:36** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	50.0	1.0	61.94	0	81	75	125	57.08	13	20	
Arsenic	85.5	1.0	61.94	20.13	105	75	125	73.62	15	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30519

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150917A: 218** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-012AMSD** Method: **SW6020**

Analysis Date: **09/18/15 06:36** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	83.5	13	61.94	0	135	75	125	99.45	17	20	S
Cadmium	34.0	1.0	30.97	0	110	75	125	33.98	0.0	20	
Chromium	80.9	1.0	61.94	14.12	108	75	125	80.37	0.7	20	
Cobalt	70.2	1.0	61.94	4.126	107	75	125	70.92	1.0	20	
Lead	70.5	1.0	61.94	4.491	107	75	125	70.68	0.3	20	
Molybdenum	66.7	1.0	61.94	0	108	75	125	70.58	5.7	20	
Selenium	62.3	1.0	61.94	0	101	75	125	63.52	1.9	20	
Silver	35.9	1.0	30.97	0	116	75	125	37.91	5.4	20	
Uranium	65.8	1.0	61.94	0.8083	105	75	125	67.89	3.1	20	

Associated samples: **H15090199-006A, H15090199-009A, H15090199-012A**

Run ID :Run Order: **ICPMS204-B_150917A: 260** SampType: **Laboratory Control Sample** Lab ID: **LCS-30519** Method: **SW6020**

Analysis Date: **09/18/15 13:13** Units: **mg/kg** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	54.1	1.0	240	0	23	0	92.9				
Arsenic	164	1.0	196	0.1172	84	71.4	105.1				
Boron	109	2.2	129	0	84	59.5	106.2				
Cadmium	93.6	1.0	99	0	95	73.9	106.1				
Chromium	112	1.0	117	0.1311	95	73.5	108.5				
Cobalt	110	1.0	108	0	101	74.2	105.6				
Lead	104	1.0	105	0	99	74.4	108.6				
Molybdenum	117	1.0	127	0	92	66.5	103.1				
Selenium	182	1.0	205	0	89	71.2	110.2				
Silver	41.3	1.0	42.1	0	98	70.8	111.9				
Uranium	97.3	1.0	99.9	0	97	80.1	120.1				

Associated samples: **H15090199-006A, H15090199-009A, H15090199-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30537

Date: *05-Oct-15*

Run ID :Run Order: **FIA203-HE_150918A: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-30537** Method: **A4500 N-C**
Analysis Date: **09/17/15 11:07** Units: **mg/L** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	6.13	0.15	6.37	0.007425	**96**	90	110				

Associated samples: **H15090199-002A, H15090199-003A**

Run ID :Run Order: **FIA203-HE_150918A: 12** SampType: **Method Blank** Lab ID: **MB-30537** Method: **A4500 N-C**
Analysis Date: **09/17/15 11:08** Units: **mg/L** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.007	0.005									

Associated samples: **H15090199-002A, H15090199-003A**

Run ID :Run Order: **FIA203-HE_150918A: 15** SampType: **Sample Matrix Spike** Lab ID: **H15090199-003AMS** Method: **A4500 N-C**
Analysis Date: **09/17/15 11:12** Units: **mg/L** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.992	0.10	1	0.02687	**96**	90	110				

Associated samples: **H15090199-002A, H15090199-003A**

Run ID :Run Order: **FIA203-HE_150918A: 16** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-003AMSD** Method: **A4500 N-C**
Analysis Date: **09/17/15 11:13** Units: **mg/L** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.975	0.10	1	0.02687	**95**	90	110	0.9916	**1.7**	20	

Associated samples: **H15090199-002A, H15090199-003A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30560

Date: *05-Oct-15*

Run ID :Run Order: **HGCV202-H_150917A: 32** SampType: **Method Blank** Lab ID: **MB-30560** Method: **E245.1**
Analysis Date: **09/17/15 16:32** Units: **mg/L** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2E-06	1E-06									

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **HGCV202-H_150917A: 35** SampType: **Laboratory Control Sample** Lab ID: **LCS-30560** Method: **E245.1**
Analysis Date: **09/17/15 16:53** Units: **mg/L** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000176	0.00010	0.00015	0.00000157	116	90	110				S

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **HGCV202-H_150917A: 52** SampType: **Sample Matrix Spike** Lab ID: **H15090199-002CMS** Method: **E245.1**
Analysis Date: **09/17/15 17:57** Units: **mg/L** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00018	0.00010	0.00015	0.00000498	116	70	130				

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **HGCV202-H_150917A: 53** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-002CMSD** Method: **E245.1**
Analysis Date: **09/17/15 18:01** Units: **mg/L** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00016	0.00010	0.00015	0.00000498	103	70	130	0.0001789	12	20	

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30588

Date: *05-Oct-15*

Run ID :Run Order: **HGCV201-H_150921A: 25** SampType: **Method Blank** Lab ID: **MB-30588** Method: **SW7471B**
Analysis Date: **09/21/15 15:40** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.010									

Associated samples: **H15090199-004A, H15090199-005A, H15090199-006A, H15090199-007A, H15090199-008A, H15090199-009A, H15090199-010A, H15090199-011A, H15090199-012A**

Run ID :Run Order: **HGCV201-H_150921A: 26** SampType: **Laboratory Control Sample** Lab ID: **LCS-30588** Method: **SW7471B**
Analysis Date: **09/21/15 15:43** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.8	0.50	5	0	116	71	126.4				

Associated samples: **H15090199-004A, H15090199-005A, H15090199-006A, H15090199-007A, H15090199-008A, H15090199-009A, H15090199-010A, H15090199-011A, H15090199-012A**

Run ID :Run Order: **HGCV201-H_150921A: 27** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30588** Method: **SW7471B**
Analysis Date: **09/21/15 15:45** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.1	0.50	1	0	109	80	120				

Associated samples: **H15090199-004A, H15090199-005A, H15090199-006A, H15090199-007A, H15090199-008A, H15090199-009A, H15090199-010A, H15090199-011A, H15090199-012A**

Run ID :Run Order: **HGCV201-H_150924B: 43** SampType: **Method Blank** Lab ID: **MB-30588** Method: **SW7471B**
Analysis Date: **09/24/15 14:12** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.010									

Associated samples: **H15090199-004A, H15090199-005A, H15090199-006A, H15090199-007A, H15090199-008A, H15090199-009A, H15090199-010A, H15090199-011A, H15090199-012A**

Run ID :Run Order: **HGCV201-H_150924B: 56** SampType: **Sample Matrix Spike** Lab ID: **H15090199-012AMS** Method: **SW7471B**
Analysis Date: **09/24/15 14:46** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.2	0.50	1.228	0.01419	99	80	120				

Associated samples: **H15090199-004A, H15090199-005A, H15090199-006A, H15090199-007A, H15090199-008A, H15090199-009A, H15090199-010A, H15090199-011A, H15090199-012A**

Run ID :Run Order: **HGCV201-H_150924B: 57** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-012AMSD** Method: **SW7471B**
Analysis Date: **09/24/15 14:49** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.3	0.50	1.223	0.01419	109	80	120	1.235	8.9	20	

Associated samples: **H15090199-004A, H15090199-005A, H15090199-006A, H15090199-007A, H15090199-008A, H15090199-009A, H15090199-010A, H15090199-011A, H15090199-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30620

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 173** SampType: **Method Blank** Lab ID: **MB-30620** Method: **SW6020**
Analysis Date: **09/25/15 19:55** Units: **mg/kg** **Prep Info:** Prep Date: **9/25/2015** Prep Method: **SW3050 B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	0.08	0.05									

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICPMS204-B_150925B: 174** SampType: **Laboratory Control Sample** Lab ID: **LCS-30620** Method: **SW6020**
Analysis Date: **09/25/15 19:58** Units: **mg/kg** **Prep Info:** Prep Date: **9/25/2015** Prep Method: **SW3050 B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	43.0	1.0	42.1	0.08108	102	70.8	111.9				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICPMS204-B_150925B: 175** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30620** Method: **SW6020**
Analysis Date: **09/25/15 20:01** Units: **mg/kg** **Prep Info:** Prep Date: **9/25/2015** Prep Method: **SW3050 B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	25.9	1.0	24.67	0.08108	105	80	120				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICPMS204-B_150925B: 181** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090199-011APDS** Method: **SW6020**
Analysis Date: **09/25/15 20:20** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/25/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	323	1.0	378.4	0.1023	85	75	125				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICPMS204-B_150925B: 182** SampType: **Sample Matrix Spike** Lab ID: **H15090199-011AMS** Method: **SW6020**
Analysis Date: **09/25/15 20:23** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/25/2015** Prep Method: **SW3050 B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	41.1	1.0	37.56	0.1023	109	75	125				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICPMS204-B_150925B: 183** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-011AMSD** Method: **SW6020**
Analysis Date: **09/25/15 20:27** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **SW3050 B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	38.4	1.0	35.99	0.1023	106	75	125	41.1	6.9	20	

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_45715

Date: *05-Oct-15*

Run ID :Run Order: **SUB-C204123: 1** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV-45715** Method: **A5310 C**

Analysis Date: **09/15/15 02:28** Units: **mg/L** **Prep Info:** Prep Date: **9/14/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.4	0.50	10	0	**104**	90	110	0			

Associated samples: **H15090199-001E, H15090199-002E, H15090199-003E**

Run ID :Run Order: **SUB-C204123: 2** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1-45715** Method: **A5310 C**

Analysis Date: **09/15/15 06:23** Units: **mg/L** **Prep Info:** Prep Date: **9/14/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.3	0.50	10	0	**103**	90	110	0			

Associated samples: **H15090199-001E, H15090199-002E, H15090199-003E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_R204123

Date: *05-Oct-15*

Run ID :Run Order: **SUB-C204123: 3** SampType: **Sample Matrix Spike** Lab ID: **C15090398-014DMS** Method: **A5310 C**
Analysis Date: **09/15/15 07:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	54.4	0.80	40	12.94	**104**	85	115	0			

Associated samples: **H15090199-001E, H15090199-002E, H15090199-003E**

Run ID :Run Order: **SUB-C204123: 4** SampType: **Sample Matrix Spike Duplicate** Lab ID: **C15090398-014DMSD** Method: **A5310 C**
Analysis Date: **09/15/15 07:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	54.6	0.80	40	12.94	**104**	85	115	54.36	**0.5**	10	

Associated samples: **H15090199-001E, H15090199-002E, H15090199-003E**

Run ID :Run Order: **SUB-C204123: 8** SampType: **Method Blank** Lab ID: **MBLK** Method: **A5310 C**
Analysis Date: **09/14/15 17:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	ND	0.04									

Associated samples: **H15090199-001E, H15090199-002E, H15090199-003E**

Run ID :Run Order: **SUB-C204123: 9** SampType: **Laboratory Control Sample** Lab ID: **LCS-8492** Method: **A5310 C**
Analysis Date: **09/15/15 01:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Total (TOC)	10.5	0.50	10	0	**105**	90	110	0			

Associated samples: **H15090199-001E, H15090199-002E, H15090199-003E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109235

Date: *05-Oct-15*

Run ID :Run Order: **PHSC_101-H_150910A: 40** SampType: **Method Blank** Lab ID: **MB** Method: **A2320 B**

Analysis Date: **09/10/15 16:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	2	0.7									

Associated samples: **H15090199-001A, H15090199-002A, H15090199-003A**

Run ID :Run Order: **PHSC_101-H_150910A: 42** SampType: **Laboratory Control Sample** Lab ID: **LCS** Method: **A2320 B**

Analysis Date: **09/10/15 16:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	600	4.0	600	1.64	**99**	90	110				

Associated samples: **H15090199-001A, H15090199-002A, H15090199-003A**

Run ID :Run Order: **PHSC_101-H_150910A: 59** SampType: **Sample Duplicate** Lab ID: **H15090199-003ADUP** Method: **A2320 B**

Analysis Date: **09/10/15 18:36** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	110	4.0		0				113.8	**0.3**	10	
Bicarbonate as HCO3	140	4.0		0				138.2	**0.3**	10	

Associated samples: **H15090199-001A, H15090199-002A, H15090199-003A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109272

Date: *05-Oct-15*

Run ID :Run Order: **IC102-H_150910A: 12** SampType: **Method Blank** Lab ID: **ICB** Method: **E300.0**
Analysis Date: **09/10/15 16:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	0.02	0.009									
Sulfate	ND	0.02									

Associated samples: **H15090199-001A, H15090199-002A, H15090199-003A**

Run ID :Run Order: **IC102-H_150910A: 13** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E300.0**
Analysis Date: **09/10/15 16:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	100	1.0	100	0	**100**	90	110				
Sulfate	405	1.0	400	0	**101**	90	110				

Associated samples: **H15090199-001A, H15090199-002A, H15090199-003A**

Run ID :Run Order: **IC102-H_150910A: 14** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E300.0**
Analysis Date: **09/10/15 17:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	46.6	1.0	50	0.015	**93**	90	110				
Sulfate	199	1.0	200	0	**100**	90	110				

Associated samples: **H15090199-001A, H15090199-002A, H15090199-003A**

Run ID :Run Order: **IC102-H_150910A: 15** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV091015-1** Method: **E300.0**
Analysis Date: **09/10/15 17:12** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	100	1.0	100	0	**100**	90	110				
Sulfate	403	1.0	400	0	**101**	90	110				

Associated samples: **H15090199-001A, H15090199-002A, H15090199-003A**

Run ID :Run Order: **IC102-H_150910A: 27** SampType: **Sample Matrix Spike** Lab ID: **H15090199-003AMS** Method: **E300.0**
Analysis Date: **09/10/15 19:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	47.6	1.0	50	1.178	**93**	90	110				
Sulfate	231	1.0	200	28.49	**101**	90	110				

Associated samples: **H15090199-001A, H15090199-002A, H15090199-003A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109272

Date: *05-Oct-15*

Run ID :Run Order: **IC102-H_150910A: 28** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-003AMSD** Method: **E300.0**

Analysis Date: **09/10/15 19:36** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	47.1	1.0	50	1.178	**92**	90	110	47.65	**1.2**	20	
Sulfate	228	1.0	200	28.49	**100**	90	110	230.6	**1.0**	20	

Associated samples: **H15090199-001A, H15090199-002A, H15090199-003A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **09/11/15 13:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.301	0.10	0.3	0	100	90	110				
Antimony	0.0589	0.050	0.06	0	98	90	110				
Arsenic	0.0609	0.0050	0.06	0	102	90	110				
Barium	0.0585	0.10	0.06	0	97	90	110				
Boron	0.0581	0.10	0.06	0	97	90	110				
Cadmium	0.0310	0.0010	0.03	0	103	90	110				
Calcium	3.08	0.50	3	0	103	90	110				
Chromium	0.0599	0.010	0.06	0	100	90	110				
Cobalt	0.0602	0.010	0.06	0	100	90	110				
Copper	0.0614	0.010	0.06	0	102	90	110				
Iron	0.309	0.020	0.3	0	103	90	110				
Lead	0.0579	0.010	0.06	0	97	90	110				
Magnesium	3.03	0.50	3	0	101	90	110				
Manganese	0.298	0.010	0.3	0	99	90	110				
Molybdenum	0.0583	0.0050	0.06	0	97	90	110				
Nickel	0.0610	0.010	0.06	0	102	90	110				
Potassium	2.94	0.50	3	0	98	90	110				
Selenium	0.0602	0.0050	0.06	0	100	90	110				
Silver	0.0306	0.0050	0.03	0	102	90	110				
Sodium	3.11	0.50	3	0	104	90	110				
Uranium	0.0573	0.0010	0.06	0	95	90	110				
Vanadium	0.0587	0.10	0.06	0	98	90	110				

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150911A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/11/15 13:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.5	0.10	40	0	96	70	130				
Antimony	0.000386	0.050		0							
Arsenic	5.60E-05	0.0050		0							
Barium	0.000111	0.10		0							
Boron	0.00299	0.10		0							
Cadmium	0.000453	0.0010		0							

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/11/15 13:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	122	0.50	120	0	**101**	70	130				
Chromium	0.00108	0.010		0							
Cobalt	2.90E-05	0.010		0							
Copper	0.000178	0.010		0							
Iron	99.1	0.020	100	0	**99**	70	130				
Lead	0.000248	0.010		0							
Magnesium	40.7	0.50	40	0	**102**	70	130				
Manganese	0.000302	0.010		0							
Molybdenum	0.838	0.0050	0.8	0	**105**	70	130				
Nickel	0.000615	0.010		0							
Potassium	40.4	0.50	40	0	**101**	70	130				
Selenium	0.000381	0.0050		0							
Silver	0.000171	0.0050		0							
Sodium	100	0.50	100	0	**100**	70	130				
Uranium	0.000267	0.0010		0							
Vanadium	0.000135	0.10		0							

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150911A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/11/15 13:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	39.1	0.10	40	0	**98**	70	130				
Antimony	0.000170	0.050		0		0	0				
Arsenic	0.0111	0.0050	0.01	0	**111**	70	130				
Barium	0.000180	0.10		0		0	0				
Boron	0.00340	0.10		0		0	0				
Cadmium	0.0109	0.0010	0.01	0	**109**	70	130				
Calcium	121	0.50	120	0	**101**	70	130				
Chromium	0.0239	0.010	0.02	0	**119**	70	130				
Cobalt	0.0227	0.010	0.02	0	**114**	70	130				
Copper	0.0221	0.010	0.02	0	**111**	70	130				
Iron	99.3	0.020	100	0	**99**	70	130				
Lead	0.000219	0.010		0		0	0				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/11/15 13:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	41.6	0.50	40	0	**104**	70	130				
Manganese	0.0229	0.010	0.02	0	**114**	70	130				
Molybdenum	0.837	0.0050	0.8	0	**105**	70	130				
Nickel	0.0227	0.010	0.02	0	**113**	70	130				
Potassium	40.4	0.50	40	0	**101**	70	130				
Selenium	0.0110	0.0050	0.01	0	**110**	70	130				
Silver	0.0194	0.0050	0.02	0	**97**	70	130				
Sodium	104	0.50	100	0	**104**	70	130				
Uranium	4.00E-05	0.0010		0		0	0				
Vanadium	0.0231	0.10	0.02	0	**116**	70	130				

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150911A: 31** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **09/11/15 21:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.276	0.10	0.3	0	**92**	90	110				
Antimony	0.0600	0.050	0.06	0	**100**	90	110				
Arsenic	0.0630	0.0050	0.06	0	**105**	90	110				
Barium	0.0590	0.10	0.06	0	**98**	90	110				
Boron	0.0618	0.10	0.06	0	**103**	90	110				
Cadmium	0.0318	0.0010	0.03	0	**106**	90	110				
Calcium	3.04	0.50	3	0	**101**	90	110				
Chromium	0.0595	0.010	0.06	0	**99**	90	110				
Cobalt	0.0601	0.010	0.06	0	**100**	90	110				
Copper	0.0615	0.010	0.06	0	**103**	90	110				
Iron	0.309	0.020	0.3	0	**103**	90	110				
Lead	0.0583	0.010	0.06	0	**97**	90	110				
Magnesium	3.07	0.50	3	0	**102**	90	110				
Manganese	0.302	0.010	0.3	0	**101**	90	110				
Molybdenum	0.0584	0.0050	0.06	0	**97**	90	110				
Nickel	0.0612	0.010	0.06	0	**102**	90	110				
Potassium	2.94	0.50	3	0	**98**	90	110				
Selenium	0.0628	0.0050	0.06	0	**105**	90	110				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 31** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **09/11/15 21:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	0.0305	0.0050	0.03	0	102	90	110				
Sodium	3.15	0.50	3	0	105	90	110				
Uranium	0.0571	0.0010	0.06	0	95	90	110				
Vanadium	0.0583	0.10	0.06	0	97	90	110				

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150911A: 32** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/11/15 21:13** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	35.4	0.10	40	0	89	70	130				
Antimony	0.000362	0.050		0							
Arsenic	0.000125	0.0050		0							
Barium	3.80E-05	0.10		0							
Boron	0.00364	0.10		0							
Cadmium	0.000339	0.0010		0							
Calcium	120	0.50	120	0	100	70	130				
Chromium	0.00101	0.010		0							
Cobalt	2.40E-05	0.010		0							
Copper	0.000185	0.010		0							
Iron	97.8	0.020	100	0	98	70	130				
Lead	0.000222	0.010		0							
Magnesium	40.6	0.50	40	0	101	70	130				
Manganese	0.000325	0.010		0							
Molybdenum	0.827	0.0050	0.8	0	103	70	130				
Nickel	0.000570	0.010		0							
Potassium	40.0	0.50	40	0	100	70	130				
Selenium	2.90E-05	0.0050		0							
Silver	0.000117	0.0050		0							
Sodium	101	0.50	100	0	101	70	130				
Uranium	0.000170	0.0010		0							
Vanadium	7.30E-05	0.10		0							

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 33** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/11/15 21:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	35.8	0.10	40	0	**90**	70	130				
Antimony	0.000167	0.050		0		0	0				
Arsenic	0.0112	0.0050	0.01	0	**112**	70	130				
Barium	0.000157	0.10		0		0	0				
Boron	0.00353	0.10		0		0	0				
Cadmium	0.0110	0.0010	0.01	0	**110**	70	130				
Calcium	121	0.50	120	0	**101**	70	130				
Chromium	0.0235	0.010	0.02	0	**117**	70	130				
Cobalt	0.0225	0.010	0.02	0	**112**	70	130				
Copper	0.0222	0.010	0.02	0	**111**	70	130				
Iron	98.1	0.020	100	0	**98**	70	130				
Lead	0.000220	0.010		0		0	0				
Magnesium	41.7	0.50	40	0	**104**	70	130				
Manganese	0.0225	0.010	0.02	0	**113**	70	130				
Molybdenum	0.834	0.0050	0.8	0	**104**	70	130				
Nickel	0.0223	0.010	0.02	0	**111**	70	130				
Potassium	40.5	0.50	40	0	**101**	70	130				
Selenium	0.0111	0.0050	0.01	0	**111**	70	130				
Silver	0.0198	0.0050	0.02	0	**99**	70	130				
Sodium	103	0.50	100	0	**103**	70	130				
Uranium	3.50E-05	0.0010		0		0	0				
Vanadium	0.0226	0.10	0.02	0	**113**	70	130				

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150911A: 54** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **09/12/15 00:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0008									
Antimony	5E-05	4E-05									
Arsenic	ND	6E-05									
Barium	ND	8E-05									
Cadmium	ND	2E-05									
Chromium	ND	3E-05									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 54** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **09/12/15 00:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt	ND	3E-05									
Copper	ND	6E-05									
Iron	ND	0.0006									
Lead	ND	3E-05									
Manganese	ND	4E-05									
Molybdenum	ND	3E-05									
Nickel	ND	3E-05									
Selenium	ND	0.0002									
Silver	ND	3E-05									
Uranium	ND	1.0E-05									
Vanadium	ND	3E-05									

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Run ID :Run Order: **ICPMS204-B_150911A: 55** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**

Analysis Date: **09/12/15 00:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0482	0.10	0.05	0	**96**	85	115				
Antimony	0.0491	0.050	0.05	0.0000496	**98**	85	115				
Arsenic	0.0511	0.0050	0.05	0	**102**	85	115				
Barium	0.0501	0.10	0.05	0	**100**	85	115				
Cadmium	0.0520	0.0010	0.05	0	**104**	85	115				
Chromium	0.0506	0.010	0.05	0	**101**	85	115				
Cobalt	0.0512	0.010	0.05	0	**102**	85	115				
Copper	0.0521	0.010	0.05	0	**104**	85	115				
Iron	0.154	0.020	0.15	0	**102**	85	115				
Lead	0.0489	0.010	0.05	0	**98**	85	115				
Manganese	0.0517	0.010	0.05	0	**103**	85	115				
Molybdenum	0.0507	0.0050	0.05	0	**101**	85	115				
Nickel	0.0519	0.010	0.05	0	**104**	85	115				
Selenium	0.0539	0.0050	0.05	0	**108**	85	115				
Silver	0.0199	0.0050	0.02	0	**100**	85	115				
Uranium	0.0460	0.0010	0.05	0	**92**	85	115				
Vanadium	0.0495	0.10	0.05	0	**99**	85	115				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 55** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**

Analysis Date: **09/12/15 00:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Run ID :Run Order: **ICPMS204-B_150911A: 183** SampType: **Sample Matrix Spike** Lab ID: **H15090135-003CMS** Method: **E200.8**

Analysis Date: **09/12/15 07:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0602	0.030	0.05	0.01399	92	70	130				
Antimony	0.0491	0.0010	0.05	0.0002627	98	70	130				
Arsenic	0.0570	0.0010	0.05	0.000945	112	70	130				
Barium	0.105	0.050	0.05	0.05761	94	70	130				
Cadmium	0.0516	0.0010	0.05	0.0001248	103	70	130				
Chromium	0.0497	0.0050	0.05	0.0000676	99	70	130				
Cobalt	0.0508	0.0050	0.05	0.0001088	101	70	130				
Copper	0.0523	0.0050	0.05	0.001015	102	70	130				
Iron	0.160	0.020	0.15	0.01055	99	70	130				
Lead	0.0482	0.0010	0.05	0.0000328	96	70	130				
Manganese	0.0546	0.0010	0.05	0.004785	100	70	130				
Molybdenum	0.0509	0.0010	0.05	0.0006138	101	70	130				
Nickel	0.0521	0.0050	0.05	0.0004424	103	70	130				
Selenium	0.0562	0.0010	0.05	0	112	70	130				
Silver	0.0196	0.0010	0.02	0	98	70	130				
Uranium	0.0448	0.00030	0.05	0.0002583	89	70	130				
Vanadium	0.0502	0.010	0.05	0.000179	100	70	130				

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Run ID :Run Order: **ICPMS204-B_150911A: 184** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090135-003CMSD** Method: **E200.8**

Analysis Date: **09/12/15 07:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0614	0.030	0.05	0.01399	95	70	130	0.06018	2.0	20	
Antimony	0.0507	0.0010	0.05	0.0002627	101	70	130	0.04909	3.1	20	
Arsenic	0.0557	0.0010	0.05	0.000945	110	70	130	0.05695	2.2	20	
Barium	0.107	0.050	0.05	0.05761	98	70	130	0.1048	1.7	20	
Cadmium	0.0521	0.0010	0.05	0.0001248	104	70	130	0.05164	0.9	20	
Chromium	0.0499	0.0050	0.05	0.0000676	100	70	130	0.04967	0.5	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 184** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090135-003CMSD** Method: **E200.8**

Analysis Date: **09/12/15 07:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt	0.0509	0.0050	0.05	0.0001088	102	70	130	0.05081	0.3	20	
Copper	0.0521	0.0050	0.05	0.001015	102	70	130	0.05226	0.3	20	
Iron	0.161	0.020	0.15	0.01055	100	70	130	0.1596	0.6	20	
Lead	0.0485	0.0010	0.05	0.0000328	97	70	130	0.0482	0.6	20	
Manganese	0.0548	0.0010	0.05	0.004785	100	70	130	0.05457	0.4	20	
Molybdenum	0.0523	0.0010	0.05	0.0006138	103	70	130	0.05092	2.7	20	
Nickel	0.0525	0.0050	0.05	0.0004424	104	70	130	0.05208	0.8	20	
Selenium	0.0568	0.0010	0.05	0	114	70	130	0.0562	1.1	20	
Silver	0.0202	0.0010	0.02	0	101	70	130	0.0196	3.0	20	
Uranium	0.0454	0.00030	0.05	0.0002583	90	70	130	0.04482	1.2	20	
Vanadium	0.0503	0.010	0.05	0.000179	100	70	130	0.05022	0.1	20	

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Run ID :Run Order: **ICPMS204-B_150911A: 214** SampType: **Sample Matrix Spike** Lab ID: **H15090206-004BMS** Method: **E200.8**

Analysis Date: **09/12/15 09:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0460	0.030	0.05	0.001003	90	70	130				
Antimony	0.0483	0.0010	0.05	0.0002972	96	70	130				
Arsenic	0.0599	0.0010	0.05	0.006367	107	70	130				
Barium	0.0894	0.050	0.05	0.04085	97	70	130				
Cadmium	0.0489	0.0010	0.05	0.0000904	98	70	130				
Chromium	0.0475	0.0050	0.05	0	95	70	130				
Cobalt	0.0486	0.0050	0.05	0.0001066	97	70	130				
Copper	0.0574	0.0050	0.05	0.008769	97	70	130				
Iron	0.175	0.020	0.15	0.03454	93	70	130				
Lead	0.0475	0.0010	0.05	0.0001944	95	70	130				
Manganese	0.154	0.0010	0.05	0.107	93	70	130				
Molybdenum	0.0548	0.0010	0.05	0.005834	98	70	130				
Nickel	0.0489	0.0050	0.05	0.0006189	97	70	130				
Selenium	0.0566	0.0010	0.05	0.0003576	113	70	130				
Uranium	0.0499	0.00030	0.05	0.004765	90	70	130				
Vanadium	0.0501	0.010	0.05	0.002035	96	70	130				

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 215** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-004BMSD** Method: **E200.8**

Analysis Date: **09/12/15 09:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0468	0.030	0.05	0.001003	92	70	130	0.04599	1.8	20	
Antimony	0.0494	0.0010	0.05	0.0002972	98	70	130	0.04834	2.2	20	
Arsenic	0.0610	0.0010	0.05	0.006367	109	70	130	0.05988	1.9	20	
Barium	0.0886	0.050	0.05	0.04085	96	70	130	0.08939	0.9	20	
Cadmium	0.0488	0.0010	0.05	0.0000904	97	70	130	0.04888	0.1	20	
Chromium	0.0472	0.0050	0.05	0	94	70	130	0.0475	0.7	20	
Cobalt	0.0481	0.0050	0.05	0.0001066	96	70	130	0.04859	1.0	20	
Copper	0.0571	0.0050	0.05	0.008769	97	70	130	0.05739	0.5	20	
Iron	0.176	0.020	0.15	0.03454	94	70	130	0.1747	0.6	20	
Lead	0.0472	0.0010	0.05	0.0001944	94	70	130	0.04754	0.8	20	
Manganese	0.152	0.0010	0.05	0.107	90	70	130	0.1535	1.0	20	
Molybdenum	0.0553	0.0010	0.05	0.005834	99	70	130	0.05484	0.9	20	
Nickel	0.0489	0.0050	0.05	0.0006189	97	70	130	0.04893	0.0	20	
Selenium	0.0571	0.0010	0.05	0.0003576	114	70	130	0.05664	0.9	20	
Uranium	0.0502	0.00030	0.05	0.004765	91	70	130	0.04992	0.7	20	
Vanadium	0.0498	0.010	0.05	0.002035	96	70	130	0.05007	0.4	20	

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Run ID :Run Order: **ICPMS204-B_150911A: 222** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/12/15 09:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	35.8	0.10	40	0	90	70	130				
Antimony	0.000169	0.050		0							
Arsenic	0.000288	0.0050		0							
Barium	8.90E-05	0.10		0							
Boron	0.00902	0.10		0							
Cadmium	0.000448	0.0010		0							
Calcium	121	0.50	120	0	101	70	130				
Chromium	0.00108	0.010		0							
Cobalt	6.70E-05	0.010		0							
Copper	0.000212	0.010		0							
Iron	97.1	0.020	100	0	97	70	130				
Lead	0.000277	0.010		0							

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 222** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/12/15 09:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	39.0	0.50	40	0	**98**	70	130				
Manganese	0.000489	0.010		0							
Molybdenum	0.851	0.0050	0.8	0	**106**	70	130				
Nickel	0.000659	0.010		0							
Potassium	41.4	0.50	40	0	**104**	70	130				
Selenium	0.000628	0.0050		0							
Silver	0.000185	0.0050		0							
Sodium	96.2	0.50	100	0	**96**	70	130				
Uranium	0.000834	0.0010		0							
Vanadium	0.000200	0.10		0							

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150911A: 223** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/12/15 09:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	35.7	0.10	40	0	**89**	70	130				
Antimony	0.000132	0.050		0		0	0				
Arsenic	0.0118	0.0050	0.01	0	**118**	70	130				
Barium	0.000118	0.10		0		0	0				
Boron	0.00716	0.10		0		0	0				
Cadmium	0.0110	0.0010	0.01	0	**110**	70	130				
Calcium	122	0.50	120	0	**102**	70	130				
Chromium	0.0233	0.010	0.02	0	**116**	70	130				
Cobalt	0.0229	0.010	0.02	0	**115**	70	130				
Copper	0.0220	0.010	0.02	0	**110**	70	130				
Iron	98.2	0.020	100	0	**98**	70	130				
Lead	0.000226	0.010		0		0	0				
Magnesium	39.5	0.50	40	0	**99**	70	130				
Manganese	0.0229	0.010	0.02	0	**115**	70	130				
Molybdenum	0.855	0.0050	0.8	0	**107**	70	130				
Nickel	0.0224	0.010	0.02	0	**112**	70	130				
Potassium	41.4	0.50	40	0	**104**	70	130				
Selenium	0.0112	0.0050	0.01	0	**112**	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 223** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/12/15 09:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	0.0202	0.0050	0.02	0	**101**	70	130				
Sodium	97.5	0.50	100	0	**98**	70	130				
Uranium	0.000170	0.0010		0		0	0				
Vanadium	0.0230	0.10	0.02	0	**115**	70	130				

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109297

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150911A: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **09/11/15 09:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.805	0.10	0.8	0	101	95	105				
Calcium	39.5	1.0	40	0	99	95	105				
Magnesium	39.2	1.0	40	0	98	95	105				
Potassium	40.4	1.0	40	0	101	95	105				
Sodium	40.5	1.0	40	0	101	95	105				

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Run ID :Run Order: **ICP2-HE_150911A: 7** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-1** Method: **E200.7**

Analysis Date: **09/11/15 09:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.54	0.10	2.5	0	102	95	105				
Calcium	25.0	1.0	25	0	100	95	105				
Magnesium	24.6	1.0	25	0	98	95	105				
Potassium	24.7	1.0	25	0	99	95	105				
Sodium	24.8	1.0	25	0	99	95	105				

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Run ID :Run Order: **ICP2-HE_150911A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **09/11/15 09:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	-0.00243	0.10		0		0	0				
Calcium	475	1.0	500	0	95	80	120				
Magnesium	531	1.0	500	0	106	80	120				
Potassium	-0.0935	1.0		0		0	0				
Sodium	0.00561	1.0		0		0	0				

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Run ID :Run Order: **ICP2-HE_150911A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **09/11/15 10:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.990	0.10	1	0	99	80	120				
Calcium	473	1.0	500	0	95	80	120				
Magnesium	527	1.0	500	0	105	80	120				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109297

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150911A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **09/11/15 10:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	20.6	1.0	20	0	103	80	120				
Sodium	20.7	1.0	20	0	104	80	120				

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Run ID :Run Order: **ICP2-HE_150911A: 13** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.7**

Analysis Date: **09/11/15 10:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.003									
Calcium	0.06	0.03									
Magnesium	ND	0.02									
Potassium	ND	0.07									
Sodium	ND	0.02									

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Run ID :Run Order: **ICP2-HE_150911A: 14** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.7**

Analysis Date: **09/11/15 10:12** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.989	0.10	1	0	99	85	115				
Calcium	50.3	1.0	50	0.06062	100	85	115				
Magnesium	50.4	1.0	50	0	101	85	115				
Potassium	50.3	1.0	50	0	101	85	115				
Sodium	50.4	1.0	50	0	101	85	115				

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Run ID :Run Order: **ICP2-HE_150911A: 17** SampType: **Sample Matrix Spike** Lab ID: **H15090135-001CMS2** Method: **E200.7**

Analysis Date: **09/11/15 10:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.990	0.050	1	0.00944	98	70	130				
Calcium	81.4	1.0	50	32.73	97	70	130				
Magnesium	63.2	1.0	50	13.4	100	70	130				
Potassium	52.4	1.0	50	1.119	102	70	130				
Sodium	56.4	1.0	50	4.667	103	70	130				

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109297

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150911A: 18** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090135-001CMSD2** Method: **E200.7**

Analysis Date: **09/11/15 10:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.02	0.050	1	0.00944	101	70	130	0.9901	3.0	20	
Calcium	82.0	1.0	50	32.73	99	70	130	81.44	0.7	20	
Magnesium	63.8	1.0	50	13.4	101	70	130	63.18	1.0	20	
Potassium	52.6	1.0	50	1.119	103	70	130	52.36	0.5	20	
Sodium	56.4	1.0	50	4.667	104	70	130	56.36	0.1	20	

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Run ID :Run Order: **ICP2-HE_150911A: 19** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **09/11/15 10:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.49	0.10	2.5	0	100	90	110				
Calcium	24.9	1.0	25	0	99	90	110				
Magnesium	24.4	1.0	25	0	97	90	110				
Potassium	25.0	1.0	25	0	100	90	110				
Sodium	25.1	1.0	25	0	100	90	110				

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Run ID :Run Order: **ICP2-HE_150911A: 34** SampType: **Sample Matrix Spike** Lab ID: **H15090206-004BMS2** Method: **E200.7**

Analysis Date: **09/11/15 11:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.11	0.050	1	0.07272	104	70	130				
Calcium	102	1.0	50	51.35	101	70	130				
Magnesium	64.1	1.0	50	12.62	103	70	130				
Potassium	58.5	1.0	50	6.29	104	70	130				
Sodium	84.2	1.0	50	31.53	105	70	130				

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Run ID :Run Order: **ICP2-HE_150911A: 35** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-004BMSD2** Method: **E200.7**

Analysis Date: **09/11/15 11:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.09	0.050	1	0.07272	101	70	130	1.112	2.3	20	
Calcium	102	1.0	50	51.35	101	70	130	101.6	0.4	20	
Magnesium	64.1	1.0	50	12.62	103	70	130	64.11	0.0	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109297

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150911A: 35** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-004BMSD2** Method: **E200.7**

Analysis Date: **09/11/15 11:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Potassium	57.7	1.0	50	6.29	**103**	70	130	58.53	**1.5**	20	
Sodium	82.9	1.0	50	31.53	**103**	70	130	84.19	**1.6**	20	

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109303

Date: *05-Oct-15*

Run ID :Run Order: **FIA202-HE_150911A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E365.1**

Analysis Date: **09/11/15 15:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.232	0.010	0.25	0	93	90	110				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA202-HE_150911A: 11** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E365.1**

Analysis Date: **09/11/15 15:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.000800	0.010		0		0	0				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA202-HE_150911A: 29** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **09/11/15 15:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.0934	0.010	0.1	0	93	90	110				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109320

Date: *05-Oct-15*

Run ID :Run Order: **FIA203-HE_150914A: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**

Analysis Date: **09/14/15 10:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.00987	0.10		0		0	0				

Associated samples: **H15090199-001A**

Run ID :Run Order: **FIA203-HE_150914A: 27** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**

Analysis Date: **09/14/15 10:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.474	0.10	0.5	0	**95**	90	110				

Associated samples: **H15090199-001A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109332

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150914B: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **09/14/15 11:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0310	0.0010	0.03	0	103	90	110				
Zinc	0.0636	0.010	0.06	0	106	90	110				

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150914B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/14/15 11:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	1.00E-06	0.0010		0							
Zinc	0.00100	0.010		0							

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150914B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/14/15 11:12** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	-5.00E-06	0.0010		0		0	0				
Zinc	0.0110	0.010	0.01	0	110	70	130				

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150914B: 25** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **09/14/15 13:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	ND	0.0002									
Zinc	0.0007	0.0001									

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Run ID :Run Order: **ICPMS204-B_150914B: 26** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**

Analysis Date: **09/14/15 13:13** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0520	0.0010	0.05	0	104	85	115				
Zinc	0.0538	0.010	0.05	0.0006624	106	85	115				

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109332

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150914B: 65** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **09/14/15 16:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0298	0.0010	0.03	0	99	90	110				
Zinc	0.0635	0.010	0.06	0	106	90	110				

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150914B: 66** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/14/15 16:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	1.70E-05	0.0010		0							
Zinc	0.000788	0.010		0							

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150914B: 67** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/14/15 16:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	1.00E-06	0.0010		0		0	0				
Zinc	0.0108	0.010	0.01	0	108	70	130				

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150914B: 93** SampType: **Sample Matrix Spike** Lab ID: **H15090199-001BMS** Method: **E200.8**

Analysis Date: **09/14/15 17:36** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0497	0.0010	0.05	0	99	70	130				
Zinc	0.0581	0.010	0.05	0.004801	107	70	130				

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Run ID :Run Order: **ICPMS204-B_150914B: 94** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-001BMSD** Method: **E200.8**

Analysis Date: **09/14/15 17:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0503	0.0010	0.05	0	101	70	130	0.04974	1.1	20	
Zinc	0.0583	0.010	0.05	0.004801	107	70	130	0.05806	0.4	20	

Associated samples: **H15090199-001B, H15090199-002B, H15090199-003B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109332

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150914B: 177** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **09/14/15 21:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0301	0.0010	0.03	0	**100**	90	110				
Zinc	0.0642	0.010	0.06	0	**107**	90	110				

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150914B: 179** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/14/15 21:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	6.00E-06	0.0010		0		0	0				
Zinc	0.0107	0.010	0.01	0	**107**	70	130				

Associated samples: **H15090199-001B, H15090199-001C, H15090199-002B, H15090199-002C, H15090199-003B, H15090199-003C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109340

Date: *05-Oct-15*

Run ID :Run Order: **FIA203-HE_150914B: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E350.1**
Analysis Date: **09/14/15 14:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	9.61	0.25	9.25	0	104	90	110				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA203-HE_150914B: 8** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E350.1**
Analysis Date: **09/14/15 14:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	1.04	0.055	1	0	104	90	110				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA203-HE_150914B: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**
Analysis Date: **09/14/15 14:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.520	0.050	0.5	0	104	90	110				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA203-HE_150914B: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E350.1**
Analysis Date: **09/14/15 14:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	-0.0308	0.050		0		0	0				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA203-HE_150914B: 18** SampType: **Sample Matrix Spike** Lab ID: **H15090191-001DMS** Method: **E350.1**
Analysis Date: **09/14/15 14:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.865	0.055	1	0	87	80	120				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA203-HE_150914B: 19** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090191-001DMSD** Method: **E350.1**
Analysis Date: **09/14/15 14:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.907	0.055	1	0	91	80	120	0.865	4.7	10	

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109340

Date: *05-Oct-15*

Run ID :Run Order: **FIA203-HE_150914B: 23** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**

Analysis Date: **09/14/15 14:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.520	0.050	0.5	0	104	90	110				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA203-HE_150914B: 26** SampType: **Sample Matrix Spike** Lab ID: **H15090199-003DMS** Method: **E350.1**

Analysis Date: **09/14/15 14:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.856	0.055	1	0	86	80	120				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA203-HE_150914B: 27** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-003DMSD** Method: **E350.1**

Analysis Date: **09/14/15 14:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.891	0.055	1	0	89	80	120	0.8561	4.0	10	

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109365

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150915A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**
Analysis Date: **09/15/15 09:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.0614	0.010	0.06	0	102	90	110				

Associated samples: **H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150915A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**
Analysis Date: **09/15/15 09:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.000360	0.010		0							

Associated samples: **H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150915A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**
Analysis Date: **09/15/15 09:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.0210	0.010	0.02	0	105	70	130				

Associated samples: **H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150915A: 177** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**
Analysis Date: **09/15/15 18:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.0611	0.010	0.06	0	102	90	110				

Associated samples: **H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150915A: 178** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**
Analysis Date: **09/15/15 18:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.000247	0.010		0							

Associated samples: **H15090199-003C**

Run ID :Run Order: **ICPMS204-B_150915A: 179** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**
Analysis Date: **09/15/15 18:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.0211	0.010	0.02	0	105	70	130				

Associated samples: **H15090199-003C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109381

Date: *05-Oct-15*

Run ID :Run Order: **FIA203-HE_150915B: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E353.2**
Analysis Date: **09/15/15 10:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.08	0.010	1	0	108	90	110				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA203-HE_150915B: 10** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E353.2**
Analysis Date: **09/15/15 10:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.01	0.011	1	0	101	90	110				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA203-HE_150915B: 11** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**
Analysis Date: **09/15/15 10:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.520	0.010	0.5	0	104	90	110				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA203-HE_150915B: 12** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E353.2**
Analysis Date: **09/15/15 10:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	-0.00795	0.010		0		0	0				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA203-HE_150915B: 14** SampType: **Method Blank** Lab ID: **MBLK** Method: **E353.2**
Analysis Date: **09/15/15 10:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	ND	0.003									

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA203-HE_150915B: 20** SampType: **Sample Matrix Spike** Lab ID: **H15090192-001BMS** Method: **E353.2**
Analysis Date: **09/15/15 10:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.945	0.011	1	0	94	90	110				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109381

Date: *05-Oct-15*

Run ID :Run Order: **FIA203-HE_150915B: 21** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090192-001BMSD** Method: **E353.2**

Analysis Date: **09/15/15 10:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.953	0.011	1	0	**95**	90	110	0.9446	**0.9**	20	

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA203-HE_150915B: 153** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E353.2**

Analysis Date: **09/15/15 14:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.06	0.010	1	0	**106**	90	110				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA203-HE_150915B: 154** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E353.2**

Analysis Date: **09/15/15 14:17** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.952	0.011	1	0	**95**	90	110				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Run ID :Run Order: **FIA203-HE_150915B: 156** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E353.2**

Analysis Date: **09/15/15 14:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	-0.0104	0.010		0		0	0				

Associated samples: **H15090199-001D, H15090199-002D, H15090199-003D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109458

Date: *05-Oct-15*

Run ID :Run Order: **FIA203-HE_150918A: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**

Analysis Date: **09/17/15 11:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.500	0.10	0.5	0	**100**	90	110				

Associated samples: **H15090199-002A, H15090199-003A**

Run ID :Run Order: **FIA203-HE_150918A: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**

Analysis Date: **09/17/15 11:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.0156	0.10		0		0	0				

Associated samples: **H15090199-002A, H15090199-003A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109469

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150917B: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **09/17/15 10:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.07	0.10	4	0	102	90	110				
Barium	0.805	0.10	0.8	0	101	90	110				
Beryllium	0.400	0.0010	0.4	0	100	90	110				
Copper	0.802	0.010	0.8	0	100	90	110				
Iron	3.91	0.020	4	0	98	90	110				
Manganese	3.88	0.010	4	0	97	90	110				
Nickel	0.755	0.010	0.8	0	94	90	110				
Vanadium	0.786	0.10	0.8	0	98	90	110				
Zinc	0.780	0.010	0.8	0	97	90	110				

Associated samples: **H15090199-004A, H15090199-005A, H15090199-006A, H15090199-007A, H15090199-008A, H15090199-009A, H15090199-010A, H15090199-011A, H15090199-012A**

Run ID :Run Order: **ICP2-HE_150917B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **09/17/15 11:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	524	0.10	500	0	105	80	120				
Barium	0.000980	0.10		0		0	0				
Beryllium	0.000250	0.0010		0		0	0				
Copper	-0.00146	0.010		0		0	0				
Iron	182	0.020	200	0	91	80	120				
Manganese	-0.00357	0.010		0		0	0				
Nickel	0.00673	0.010		0		0	0				
Vanadium	0.00320	0.10		0		0	0				
Zinc	0.00470	0.010		0		0	0				

Associated samples: **H15090199-004A, H15090199-005A, H15090199-006A, H15090199-007A, H15090199-008A, H15090199-009A, H15090199-010A, H15090199-011A, H15090199-012A**

Run ID :Run Order: **ICP2-HE_150917B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **09/17/15 11:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	527	0.10	500	0	105	80	120				
Barium	0.501	0.10	0.5	0	100	80	120				
Beryllium	0.491	0.0010	0.5	0	98	80	120				
Copper	0.506	0.010	0.5	0	101	80	120				
Iron	183	0.020	200	0	92	80	120				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109469

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150917B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **09/17/15 11:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.471	0.010	0.5	0	**94**	80	120				
Nickel	0.922	0.010	1	0	**92**	80	120				
Vanadium	0.484	0.10	0.5	0	**97**	80	120				
Zinc	1.01	0.010	1	0	**101**	80	120				

Associated samples: **H15090199-004A, H15090199-005A, H15090199-006A, H15090199-007A, H15090199-008A, H15090199-009A, H15090199-010A, H15090199-011A, H15090199-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109479

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150917A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **09/17/15 18:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 12	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0602	0.0010	0.06	0	100	90	110				
Arsenic	0.0613	0.0010	0.06	0	102	90	110				
Boron	0.0614	0.0010	0.06	0	102	90	110				
Cadmium	0.0314	0.0010	0.03	0	105	90	110				
Chromium	0.0610	0.0010	0.06	0	102	90	110				
Cobalt	0.0611	0.0010	0.06	0	102	90	110				
Lead	0.0592	0.0010	0.06	0	99	90	110				
Molybdenum	0.0591	0.0010	0.06	0	99	90	110				
Selenium	0.0612	0.0010	0.06	0	102	90	110				
Silver	0.0304	0.0010	0.03	0	101	90	110				
Uranium	0.0583	0.00030	0.06	0	97	90	110				
Zinc	0.0635	0.0010	0.06	0	106	90	110				

Associated samples: **H15090199-004A, H15090199-005A, H15090199-006A, H15090199-007A, H15090199-008A, H15090199-009A, H15090199-010A, H15090199-011A, H15090199-012A**

Run ID :Run Order: **ICPMS204-B_150917A: 236** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **09/18/15 11:59** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 12	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0598	0.0010	0.06	0	100	90	110				
Arsenic	0.0610	0.0010	0.06	0	102	90	110				
Boron	0.0590	0.0010	0.06	0	98	90	110				
Cadmium	0.0313	0.0010	0.03	0	104	90	110				
Chromium	0.0607	0.0010	0.06	0	101	90	110				
Cobalt	0.0610	0.0010	0.06	0	102	90	110				
Lead	0.0593	0.0010	0.06	0	99	90	110				
Molybdenum	0.0591	0.0010	0.06	0	99	90	110				
Selenium	0.0617	0.0010	0.06	0	103	90	110				
Silver	0.0305	0.0010	0.03	0	102	90	110				
Uranium	0.0578	0.00030	0.06	0	96	90	110				
Zinc	0.0630	0.0010	0.06	0	105	90	110				

Associated samples: **H15090199-004A, H15090199-005A, H15090199-006A, H15090199-007A, H15090199-008A, H15090199-009A, H15090199-010A, H15090199-011A, H15090199-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109479

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150917A: 274** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **09/18/15 15:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 12	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0594	0.0010	0.06	0	**99**	90	110				
Arsenic	0.0610	0.0010	0.06	0	**102**	90	110				
Boron	0.0598	0.0010	0.06	0	**100**	90	110				
Cadmium	0.0311	0.0010	0.03	0	**104**	90	110				
Chromium	0.0598	0.0010	0.06	0	**100**	90	110				
Cobalt	0.0606	0.0010	0.06	0	**101**	90	110				
Lead	0.0589	0.0010	0.06	0	**98**	90	110				
Molybdenum	0.0583	0.0010	0.06	0	**97**	90	110				
Selenium	0.0608	0.0010	0.06	0	**101**	90	110				
Silver	0.0299	0.0010	0.03	0	**100**	90	110				
Uranium	0.0579	0.00030	0.06	0	**96**	90	110				
Zinc	0.0622	0.0010	0.06	0	**104**	90	110				

Associated samples: **H15090199-004A, H15090199-005A, H15090199-006A, H15090199-007A, H15090199-008A, H15090199-009A, H15090199-010A, H15090199-011A, H15090199-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109501

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150920A: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **09/20/15 18:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt	0.780	0.010	0.8	0	**98**	90	110				
Iron	3.86	0.020	4	0	**97**	90	110				
Zinc	0.795	0.010	0.8	0	**99**	90	110				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICP2-HE_150920A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **09/20/15 19:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt	-0.00976	0.010		0		0	0				
Iron	181	0.020	200	0	**90**	80	120				
Zinc	0.00360	0.010		0		0	0				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICP2-HE_150920A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **09/20/15 19:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt	0.458	0.010	0.5	0	**92**	80	120				
Iron	180	0.020	200	0	**90**	80	120				
Zinc	1.01	0.010	1	0	**101**	80	120				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109530

Date: *05-Oct-15*

Run ID :Run Order: **ICP2-HE_150921B: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **09/21/15 09:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt	0.776	0.010	0.8	0	97	90	110				

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Run ID :Run Order: **ICP2-HE_150921B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **09/21/15 10:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt	-0.00636	0.010		0		0	0				

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Run ID :Run Order: **ICP2-HE_150921B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **09/21/15 10:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt	0.464	0.010	0.5	0	93	80	120				

Associated samples: **H15090199-004A, H15090199-007A, H15090199-010A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109687

Date: *05-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **09/25/15 10:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	0.0294	0.0010	0.03	0	**98**	90	110				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Run ID :Run Order: **ICPMS204-B_150925B: 166** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **09/25/15 19:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	0.0298	0.0010	0.03	0	**99**	90	110				

Associated samples: **H15090199-005A, H15090199-008A, H15090199-011A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109747

Date: *05-Oct-15*

Run ID :Run Order: **SOIL DRYING OVEN 2_150928B: 2** SampType: **Sample Duplicate** Lab ID: **H15090199-004ADUP** Method: **D2974**

Analysis Date: **09/29/15 09:56** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	54.8	0.20		0				56.23	**2.5**	20	

Associated samples: **H15090199-004A, H15090199-005A, H15090199-006A, H15090199-007A, H15090199-008A, H15090199-009A, H15090199-010A, H15090199-011A, H15090199-012A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: Natural Resource Damage Program
Work Order: H15090199
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: TSS150910A

Date: *05-Oct-15*

Run ID :Run Order: **ACCU-124 (14410200)_150910A: 1** SampType: **Method Blank** Lab ID: **MB-1_150910A** Method: **A2540 D**

Analysis Date: **09/10/15 13:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	0.1									

Associated samples: **H15090199-001A, H15090199-002A, H15090199-003A**

Run ID :Run Order: **ACCU-124 (14410200)_150910A: 2** SampType: **Laboratory Control Sample** Lab ID: **LCS-2_150910A** Method: **A2540 D**

Analysis Date: **09/10/15 13:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	96.0	10	100	0	**96**	80	120				

Associated samples: **H15090199-001A, H15090199-002A, H15090199-003A**

Run ID :Run Order: **ACCU-124 (14410200)_150910A: 4** SampType: **Sample Duplicate** Lab ID: **H15090199-001ADUP** Method: **A2540 D**

Analysis Date: **09/10/15 13:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	4.20	10		0				4.2		5	

Associated samples: **H15090199-001A, H15090199-002A, H15090199-003A**

Run ID :Run Order: **ACCU-124 (14410200)_150910A: 1** SampType: **Sample Duplicate** Lab ID: **H15090206-008ADUP** Method: **A2540 D**

Analysis Date: **09/10/15 14:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	12.4	10		0				12	**3.3**	5	

Associated samples: **H15090199-001A, H15090199-002A, H15090199-003A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Work Order Receipt Checklist

Natural Resource Damage Program H15090199

Login completed by: Amanda B. Blackburn
Date Received: 9/10/2015
Reviewed by: BL2000\rwilliams
Received by: bjs
Reviewed Date: 9/11/2015
Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	°C See Comments		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	No VOA vials submitted ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

Cooler 1 was received at 1.0 °C, Cooler 2 at 3.2 °C, Cooler 3 at 1.0 °C, Cooler 4 at 4.0 °C, Cooler 5 at 3.8 °C. Temperature taken from a templ blank, all on ice. Sediment samples were received in Box 1 at 20.2 °C, Box 2 at 19.9 °C. abb 9/10/15

ANALYTICAL SUMMARY REPORT

October 23, 2015

MT DEQ-Federal Superfund
PO Box 200901
Helena, MT 59620-0901

Work Order: H15090206 Quote ID: H1088 - Silver Bow Monitoring

Project Name: Silver Bow Creek Monitoring

Energy Laboratories Inc Helena MT received the following 66 samples for MT DEQ-Federal Superfund on 9/10/2015 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H15090206-001	SS-06G	09/09/15 15:00	09/10/15	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Carbon, Dissolved Organic Conductivity Mercury, Dissolved Mercury, Total Recoverable Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Nitrogen, Total Persulfate Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Digestion, Total P Water Nitrogen, Total Persulfate Phosphorus, Total Solids, Total Suspended Solids, Suspended Volatile
H15090206-002	SS-07	09/09/15 14:15	09/10/15	Aqueous	Same As Above
H15090206-003	SS-08	09/09/15 13:45	09/10/15	Aqueous	Same As Above
H15090206-004	SS-10A	09/09/15 12:30	09/10/15	Aqueous	Same As Above
H15090206-005	SS-10B	09/09/15 11:30	09/10/15	Aqueous	Same As Above
H15090206-006	Field Duplicate #2	09/09/15 11:30	09/10/15	Aqueous	Same As Above
H15090206-007	SS-11C	09/09/15 10:00	09/10/15	Aqueous	Same As Above
H15090206-008	SS-11D	09/09/15 9:00	09/10/15	Aqueous	Same As Above
H15090206-009	Field Blank #2	09/09/15 8:45	09/10/15	Aqueous	Same As Above
H15090206-010	SS-13	09/08/15 18:30	09/10/15	Aqueous	Same As Above
H15090206-011	SS-14	09/08/15 17:00	09/10/15	Aqueous	Same As Above
H15090206-012	SS-15A	09/08/15 15:00	09/10/15	Aqueous	Same As Above
H15090206-013	SS-15B	09/08/15 13:30	09/10/15	Aqueous	Same As Above
H15090206-014	Field Duplicate #1	09/08/15 13:30	09/10/15	Aqueous	Same As Above
H15090206-015	SS-16B	09/08/15 11:15	09/10/15	Aqueous	Same As Above
H15090206-016	SS-17D	09/08/15 10:00	09/10/15	Aqueous	Same As Above
H15090206-017	Field Blank #1	09/08/15 9:30	09/10/15	Aqueous	Same As Above

ANALYTICAL SUMMARY REPORT

H15090206-018	SS-19	09/08/15 8:30	09/10/15	Aqueous	Same As Above
H15090206-019	SS-06G Sediment Sieve <0.065mm	09/09/15 15:00	09/10/15	Sediment	Metals by ICP/ICPMS, Total Mercury in Solid By CVAA Percent Moisture Digestion, Total Metals Digestion, Mercury by CVAA Sieves Soil Preparation
H15090206-020	SS-06G Sediment Sieve 0.065-1mm	09/09/15 15:00	09/10/15	Sediment	Metals by ICP/ICPMS, Total Mercury in Solid By CVAA Percent Moisture Digestion, Total Metals Digestion, Mercury by CVAA Sieves
H15090206-021	SS-06G Sediment Sieve 1-2mm	09/09/15 15:00	09/10/15	Sediment	Same As Above
H15090206-022	SS-07 Sediment Sieve <0.065mm	09/09/15 14:15	09/10/15	Sediment	Same As Above
H15090206-023	SS-07 Sediment Sieve 0.065-1mm	09/09/15 14:15	09/10/15	Sediment	Same As Above
H15090206-024	SS-07 Sediment Sieve 1-2mm	09/09/15 14:15	09/10/15	Sediment	Same As Above
H15090206-025	SS-08 Sediment Sieve <0.065mm	09/09/15 13:45	09/10/15	Sediment	Same As Above
H15090206-026	SS-08 Sediment Sieve 0.065-1mm	09/09/15 13:45	09/10/15	Sediment	Same As Above
H15090206-027	SS-08 Sediment Sieve 1-2mm	09/09/15 13:45	09/10/15	Sediment	Same As Above
H15090206-028	SS-10A Sediment Sieve <0.065mm	09/09/15 12:30	09/10/15	Sediment	Same As Above
H15090206-029	SS-10A Sediment Sieve 0.065-1mm	09/09/15 12:30	09/10/15	Sediment	Same As Above
H15090206-030	SS-10A Sediment Sieve 1-2mm	09/09/15 12:30	09/10/15	Sediment	Same As Above
H15090206-031	Sediment duplicate #2 Sediment Sieve <0.065mm	09/09/15 12:30	09/10/15	Sediment	Same As Above
H15090206-032	Sediment duplicate #2 Sediment Sieve 0.065-1mm	09/09/15 12:30	09/10/15	Sediment	Same As Above
H15090206-033	Sediment duplicate #2 Sediment Sieve 1-2mm	09/09/15 12:30	09/10/15	Sediment	Same As Above
H15090206-034	SS-10B Sediment Sieve <0.065mm	09/09/15 11:30	09/10/15	Sediment	Same As Above
H15090206-035	SS-10B Sediment Sieve 0.065-1mm	09/09/15 11:30	09/10/15	Sediment	Same As Above
H15090206-036	SS-10B Sediment Sieve 1-2mm	09/09/15 11:30	09/10/15	Sediment	Same As Above
H15090206-037	SS-11C Sediment Sieve <0.065mm	09/09/15 10:00	09/10/15	Sediment	Same As Above
H15090206-038	SS-11C Sediment Sieve 0.065-1mm	09/09/15 10:00	09/10/15	Sediment	Same As Above

ANALYTICAL SUMMARY REPORT

H15090206-039	SS-11C Sediment Sieve 1-2mm	09/09/15 10:00	09/10/15	Sediment	Same As Above
H15090206-040	SS-11D Sediment Sieve <0.065mm	09/09/15 9:00	09/10/15	Sediment	Same As Above
H15090206-041	SS-11D Sediment Sieve 0.065-1mm	09/09/15 9:00	09/10/15	Sediment	Same As Above
H15090206-042	SS-11D Sediment Sieve 1-2mm	09/09/15 9:00	09/10/15	Sediment	Same As Above
H15090206-043	SS-13 Sediment Sieve <0.065mm	09/08/15 18:30	09/10/15	Sediment	Same As Above
H15090206-044	SS-13 Sediment Sieve 0.065-1mm	09/08/15 18:30	09/10/15	Sediment	Same As Above
H15090206-045	SS-13 Sediment Sieve 1-2mm	09/08/15 18:30	09/10/15	Sediment	Same As Above
H15090206-046	SS-14 Sediment Sieve <0.065mm	09/08/15 17:00	09/10/15	Sediment	Same As Above
H15090206-047	SS-14 Sediment Sieve 0.065-1mm	09/08/15 17:00	09/10/15	Sediment	Same As Above
H15090206-048	SS-14 Sediment Sieve 1-2mm	09/08/15 17:00	09/10/15	Sediment	Same As Above
H15090206-049	Sediment duplicate #1 Sediment Sieve <0.065mm	09/08/15 17:00	09/10/15	Sediment	Same As Above
H15090206-050	Sediment duplicate #1 Sediment Sieve 0.065-1mm	09/08/15 17:00	09/10/15	Sediment	Same As Above
H15090206-051	Sediment duplicate #1 Sediment Sieve 1-2mm	09/08/15 17:00	09/10/15	Sediment	Same As Above
H15090206-052	SS-15A Sediment Sieve <0.065mm	09/08/15 15:00	09/10/15	Sediment	Same As Above
H15090206-053	SS-15A Sediment Sieve 0.065-1mm	09/08/15 15:00	09/10/15	Sediment	Same As Above
H15090206-054	SS-15A Sediment Sieve 1-2mm	09/08/15 15:00	09/10/15	Sediment	Same As Above
H15090206-055	SS-15B Sediment Sieve <0.065mm	09/08/15 13:30	09/10/15	Sediment	Same As Above
H15090206-056	SS-15B Sediment Sieve 0.065-1mm	09/08/15 13:30	09/10/15	Sediment	Same As Above
H15090206-057	SS-15B Sediment Sieve 1-2mm	09/08/15 13:30	09/10/15	Sediment	Same As Above
H15090206-058	SS-16B Sediment Sieve <0.065mm	09/08/15 11:15	09/10/15	Sediment	Same As Above
H15090206-059	SS-16B Sediment Sieve 0.065-1mm	09/08/15 11:15	09/10/15	Sediment	Same As Above
H15090206-060	SS-16B Sediment Sieve 1-2mm	09/08/15 11:15	09/10/15	Sediment	Same As Above
H15090206-061	SS-17D Sediment Sieve <0.065mm	09/08/15 10:00	09/10/15	Sediment	Same As Above
H15090206-062	SS-17D Sediment Sieve 0.065-1mm	09/08/15 10:00	09/10/15	Sediment	Same As Above

ANALYTICAL SUMMARY REPORT

H15090206-063	SS-17D Sediment Sieve 1-2mm	09/08/15 10:00	09/10/15	Sediment	Same As Above
H15090206-064	SS-19 Sediment Sieve <0.065mm	09/08/15 8:30	09/10/15	Sediment	Same As Above
H15090206-065	SS-19 Sediment Sieve 0.065-1mm	09/08/15 8:30	09/10/15	Sediment	Same As Above
H15090206-066	SS-19 Sediment Sieve 1-2mm	09/08/15 8:30	09/10/15	Sediment	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Work Order: H15090206

Revised Date: 10/23/15
Report Date: 10/06/15

CASE NARRATIVE

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

Per client request, sample H15090206-007 (SS-11C) was re-analyzed to confirm analytical result for Total Nitrogen. The original reported value on the report issued 10/5/15 was a Non-Detect. The sample was originally analyzed on 9/16 and the determined concentration was 3.3 mg/L. The sample was re-analyzed per client request to confirm the results. The re-analysis on 10/9 was 3.2 mg/L. The sample was digested and re-analyzed a final time to confirm the result. The report was revised with the Total Nitrogen value from 9/16 which has confirmation data. abc 10/23/15

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G
Lab ID: H15090206-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 15:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	6	mg/L		1		A2540 D	09/10/15 13:54 / SR		-124 (14410200)_150910A	7	TSS150910A
Solids, Volatile Suspended	3	mg/L		1		A2540 E	09/11/15 09:13 / SR		MISC WC_150911A	6	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		4		A2320 B	09/11/15 10:17 / SR		PHSC_101-H_150911A	9	R109270
Bicarbonate as HCO3	150	mg/L		4		A2320 B	09/11/15 10:17 / SR		PHSC_101-H_150911A	9	R109270
Chloride	32	mg/L		1		E300.0	09/11/15 12:04 / SR		IC102-H_150911A	19	R109307
Sulfate	89	mg/L		1		E300.0	09/11/15 12:04 / SR		IC102-H_150911A	19	R109307
Hardness as CaCO3	176	mg/L		1		A2340 B	09/11/15 11:01 / abc		CALC_150914B	69	R109330
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	5.2	mg/L		0.5		A5310 C	09/18/15 04:16 / eli-c		SUB-C204267	11	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	5.3	mg/L	D	0.2		E350.1	09/14/15 15:12 / cm		FIA203-HE_150914B	62	R109340
Nitrogen, Nitrate+Nitrite as N	1.02	mg/L		0.02		E353.2	09/15/15 10:58 / cm		FIA203-HE_150915B	37	R109381
Nitrogen, Total	32.9	mg/L	D	0.8		A4500 N-C	09/17/15 11:14 / cm	09/16/15 12:10	FIA203-HE_150918A	17	30537
Phosphorus, Total as P	0.70	mg/L	D	0.01		E365.1	09/14/15 15:06 / cm	09/14/15 12:37	FIA202-HE_150914A	42	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296
Arsenic	0.005	mg/L		0.001		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296
Barium	0.040	mg/L		0.003		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:08 / dck		ICPMS204-B_150914B	105	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 11:01 / sld		ICP2-HE_150911A	27	R109297
Cadmium	0.00005	mg/L		0.00003		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296
Calcium	49	mg/L		1		E200.7	09/11/15 11:01 / sld		ICP2-HE_150911A	27	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296
Copper	0.005	mg/L		0.001		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296
Iron	0.06	mg/L		0.02		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G
Lab ID: H15090206-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 15:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296
Magnesium	13	mg/L		1		E200.7	09/11/15 11:01 / sld		ICP2-HE_150911A	27	R109297
Manganese	0.051	mg/L		0.001		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296
Mercury	ND	mg/L		5E-06		E245.1	09/17/15 18:39 / dck	09/17/15 10:26	HGCV202-H_150917A	59	30560
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296
Potassium	6	mg/L		1		E200.7	09/11/15 11:01 / sld		ICP2-HE_150911A	27	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296
Silver	ND	mg/L		0.0002		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296
Sodium	29	mg/L		1		E200.7	09/11/15 11:01 / sld		ICP2-HE_150911A	27	R109297
Uranium	0.0041	mg/L		0.0002		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 08:31 / dck		ICPMS204-B_150911A	204	R109296
Zinc	0.029	mg/L		0.008		E200.8	09/14/15 18:08 / dck		ICPMS204-B_150914B	105	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.044	mg/L		0.009		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	205	30478
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	205	30478
Arsenic	0.005	mg/L		0.001		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	205	30478
Barium	0.040	mg/L		0.003		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	205	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:11 / dck	09/11/15 09:06	ICPMS204-B_150914B	106	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	205	30478
Cadmium	0.00008	mg/L		0.00003		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	205	30478
Calcium	48	mg/L		1		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	205	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	205	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	205	30478
Copper	0.011	mg/L		0.001		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	205	30478
Iron	0.20	mg/L		0.02		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	205	30478
Lead	0.0012	mg/L		0.0003		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	205	30478
Magnesium	12	mg/L		1		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	205	30478
Manganese	0.073	mg/L		0.001		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	205	30478
Mercury	ND	mg/L		5E-06		E245.1	10/01/15 16:03 / dck	09/30/15 13:48	HGCV202-H_151001A	30	30688
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	205	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G
Lab ID: H15090206-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 15:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	: 205	30478
Potassium	6	mg/L		1		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	: 205	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	: 205	30478
Silver	ND	mg/L		0.0002		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	: 205	30478
Sodium	26	mg/L		1		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	: 205	30478
Uranium	0.0044	mg/L		0.0002		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	: 205	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 08:34 / dck	09/11/15 09:06	ICPMS204-B_150911A	: 205	30478
Zinc	0.036	mg/L		0.008		E200.8	09/14/15 18:11 / dck	09/11/15 09:06	ICPMS204-B_150914B	: 106	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07
Lab ID: H15090206-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 14:15
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	5	mg/L		1		A2540 D	09/10/15 13:54 / SR		-124 (14410200)_150910A	8	TSS150910A
Solids, Volatile Suspended	2	mg/L		1		A2540 E	09/11/15 09:13 / SR		MISC WC_150911A	7	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	100	mg/L		4		A2320 B	09/11/15 10:28 / SR		PHSC_101-H_150911A	13	R109270
Bicarbonate as HCO3	130	mg/L		4		A2320 B	09/11/15 10:28 / SR		PHSC_101-H_150911A	13	R109270
Chloride	28	mg/L		1		E300.0	09/11/15 12:37 / SR		IC102-H_150911A	22	R109307
Sulfate	112	mg/L		1		E300.0	09/11/15 12:37 / SR		IC102-H_150911A	22	R109307
Hardness as CaCO3	195	mg/L		1		A2340 B	09/11/15 11:04 / abc		CALC_150914B	80	R109330
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	2.8	mg/L		0.5		A5310 C	09/18/15 05:06 / eli-c		SUB-C204267	14	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/14/15 14:37 / cm		FIA203-HE_150914B	32	R109340
Nitrogen, Nitrate+Nitrite as N	1.32	mg/L		0.02		E353.2	09/15/15 10:59 / cm		FIA203-HE_150915B	38	R109381
Nitrogen, Total	1.46	mg/L		0.05		A4500 N-C	09/17/15 11:16 / cm	09/16/15 12:10	FIA203-HE_150918A	18	30537
Phosphorus, Total as P	0.059	mg/L		0.003		E365.1	09/15/15 14:56 / cm	09/14/15 12:37	FIA202-HE_150915A	18	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296
Arsenic	0.005	mg/L		0.001		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296
Barium	0.046	mg/L		0.003		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:14 / dck		ICPMS204-B_150914B	107	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 11:04 / sld		ICP2-HE_150911A	28	R109297
Cadmium	0.00004	mg/L		0.00003		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296
Calcium	55	mg/L		1		E200.7	09/11/15 11:04 / sld		ICP2-HE_150911A	28	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296
Copper	0.003	mg/L		0.001		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296
Iron	0.06	mg/L		0.02		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07
Lab ID: H15090206-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 14:15
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296
Magnesium	14	mg/L		1		E200.7	09/11/15 11:04 / sld		ICP2-HE_150911A	28	R109297
Manganese	0.037	mg/L		0.001		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296
Mercury	ND	mg/L		5E-06		E245.1	09/17/15 18:47 / dck	09/17/15 10:26	HGCV202-H_150917A	61	30560
Molybdenum	0.007	mg/L		0.005		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296
Potassium	4	mg/L		1		E200.7	09/11/15 11:04 / sld		ICP2-HE_150911A	28	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296
Silver	ND	mg/L		0.0002		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296
Sodium	24	mg/L		1		E200.7	09/11/15 11:04 / sld		ICP2-HE_150911A	28	R109297
Uranium	0.0051	mg/L		0.0002		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 08:37 / dck		ICPMS204-B_150911A	206	R109296
Zinc	ND	mg/L		0.008		E200.8	09/14/15 18:14 / dck		ICPMS204-B_150914B	107	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.050	mg/L		0.009		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Arsenic	0.006	mg/L		0.001		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Barium	0.044	mg/L		0.003		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:16 / dck	09/11/15 09:06	ICPMS204-B_150914B	108	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Cadmium	0.00008	mg/L		0.00003		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Calcium	54	mg/L		1		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Copper	0.009	mg/L		0.001		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Iron	0.25	mg/L		0.02		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Lead	0.0014	mg/L		0.0003		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Magnesium	13	mg/L		1		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Manganese	0.065	mg/L		0.001		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Mercury	ND	mg/L		5E-06		E245.1	09/17/15 18:51 / dck	09/17/15 10:26	HGCV202-H_150917A	62	30560
Molybdenum	0.007	mg/L		0.005		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07
Lab ID: H15090206-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 14:15
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Potassium	4	mg/L		1		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Silver	ND	mg/L		0.0002		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Sodium	21	mg/L		1		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Uranium	0.0053	mg/L		0.0002		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 08:41 / dck	09/11/15 09:06	ICPMS204-B_150911A	207	30478
Zinc	0.020	mg/L		0.008		E200.8	09/14/15 18:16 / dck	09/11/15 09:06	ICPMS204-B_150914B	108	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08
Lab ID: H15090206-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 13:45
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	3	mg/L		1		A2540 D	09/10/15 13:54 / SR		-124 (14410200)_150910A	9	TSS150910A
Solids, Volatile Suspended	2	mg/L		1		A2540 E	09/11/15 09:13 / SR		MISC WC_150911A	8	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	100	mg/L		4		A2320 B	09/11/15 10:33 / SR		PHSC_101-H_150911A	15	R109270
Bicarbonate as HCO3	130	mg/L		4		A2320 B	09/11/15 10:33 / SR		PHSC_101-H_150911A	15	R109270
Chloride	33	mg/L		1		E300.0	09/11/15 12:48 / SR		IC102-H_150911A	23	R109307
Sulfate	93	mg/L		1		E300.0	09/11/15 12:48 / SR		IC102-H_150911A	23	R109307
Hardness as CaCO3	177	mg/L		1		A2340 B	09/11/15 11:08 / abc		CALC_150914B	91	R109330
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.7	mg/L		0.5		A5310 C	09/18/15 05:28 / eli-c		SUB-C204267	15	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	0.94	mg/L		0.05		E350.1	09/14/15 14:38 / cm		FIA203-HE_150914B	33	R109340
Nitrogen, Nitrate+Nitrite as N	3.62	mg/L		0.02		E353.2	09/15/15 12:32 / cm		FIA203-HE_150915B	116	R109381
Nitrogen, Total	24.9	mg/L	D	0.8		A4500 N-C	09/17/15 11:17 / cm	09/16/15 12:10	FIA203-HE_150918A	19	30537
Phosphorus, Total as P	0.494	mg/L		0.003		E365.1	09/15/15 14:57 / cm	09/14/15 12:37	FIA202-HE_150915A	19	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296
Arsenic	0.005	mg/L		0.001		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296
Barium	0.040	mg/L		0.003		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:19 / dck		ICPMS204-B_150914B	109	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 11:08 / sld		ICP2-HE_150911A	29	R109297
Cadmium	0.00007	mg/L		0.00003		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296
Calcium	50	mg/L		1		E200.7	09/11/15 11:08 / sld		ICP2-HE_150911A	29	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296
Copper	0.005	mg/L		0.001		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296
Iron	0.05	mg/L		0.02		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08
Lab ID: H15090206-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 13:45
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296
Magnesium	13	mg/L		1		E200.7	09/11/15 11:08 / sld		ICP2-HE_150911A	29	R109297
Manganese	0.101	mg/L		0.001		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296
Mercury	ND	mg/L		5E-06		E245.1	09/17/15 18:54 / dck	09/17/15 10:26	HGCV202-H_150917A	63	30560
Molybdenum	0.005	mg/L		0.005		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296
Potassium	6	mg/L		1		E200.7	09/11/15 11:08 / sld		ICP2-HE_150911A	29	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296
Silver	ND	mg/L		0.0002		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296
Sodium	31	mg/L		1		E200.7	09/11/15 11:08 / sld		ICP2-HE_150911A	29	R109297
Uranium	0.0038	mg/L		0.0002		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 08:53 / dck		ICPMS204-B_150911A	211	R109296
Zinc	0.039	mg/L		0.008		E200.8	09/14/15 18:19 / dck		ICPMS204-B_150914B	109	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.023	mg/L		0.009		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Arsenic	0.006	mg/L		0.001		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Barium	0.042	mg/L		0.003		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:21 / dck	09/11/15 09:06	ICPMS204-B_150914B	110	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Cadmium	0.00011	mg/L		0.00003		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Calcium	49	mg/L		1		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Copper	0.008	mg/L		0.001		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Iron	0.17	mg/L		0.02		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Lead	0.0011	mg/L		0.0003		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Magnesium	12	mg/L		1		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Manganese	0.135	mg/L		0.001		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Mercury	5.4E-06	mg/L		5E-06		E245.1	10/01/15 16:14 / dck	09/30/15 13:48	HGCV202-H_151001A	33	30688
Molybdenum	0.005	mg/L		0.005		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08
Lab ID: H15090206-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 13:45
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Potassium	6	mg/L		1		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Silver	ND	mg/L		0.0002		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Sodium	28	mg/L		1		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Uranium	0.0042	mg/L		0.0002		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 08:57 / dck	09/11/15 09:06	ICPMS204-B_150911A	212	30478
Zinc	0.042	mg/L		0.008		E200.8	09/14/15 18:21 / dck	09/11/15 09:06	ICPMS204-B_150914B	110	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A
Lab ID: H15090206-004
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 12:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	5	mg/L		1		A2540 D	09/10/15 13:55 / SR		L24 (14410200)_150910A	10	TSS150910A
Solids, Volatile Suspended	2	mg/L		1		A2540 E	09/11/15 09:13 / SR		MISC WC_150911A	9	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	100	mg/L		4		A2320 B	09/11/15 10:39 / SR		PHSC_101-H_150911A	17	R109270
Bicarbonate as HCO3	130	mg/L		4		A2320 B	09/11/15 10:39 / SR		PHSC_101-H_150911A	17	R109270
Chloride	32	mg/L		1		E300.0	09/11/15 12:59 / SR		IC102-H_150911A	24	R109307
Sulfate	99	mg/L		1		E300.0	09/11/15 12:59 / SR		IC102-H_150911A	24	R109307
Hardness as CaCO3	180	mg/L		1		A2340 B	09/11/15 11:12 / abc		CALC_150914B	102	R109330
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.3	mg/L		0.5		A5310 C	09/18/15 05:48 / eli-c		SUB-C204267	16	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	0.36	mg/L		0.05		E350.1	09/14/15 14:39 / cm		FIA203-HE_150914B	34	R109340
Nitrogen, Nitrate+Nitrite as N	3.15	mg/L		0.02		E353.2	09/15/15 12:33 / cm		FIA203-HE_150915B	117	R109381
Nitrogen, Total	18.8	mg/L	D	0.8		A4500 N-C	09/17/15 11:18 / cm	09/16/15 12:10	FIA203-HE_150918A	20	30537
Phosphorus, Total as P	0.425	mg/L		0.003		E365.1	09/15/15 14:58 / cm	09/14/15 12:37	FIA202-HE_150915A	20	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 09:00 / dck		ICPMS204-B_150911A	213	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 09:00 / dck		ICPMS204-B_150911A	213	R109296
Arsenic	0.006	mg/L		0.001		E200.8	09/12/15 09:00 / dck		ICPMS204-B_150911A	213	R109296
Barium	0.041	mg/L		0.003		E200.8	09/12/15 09:00 / dck		ICPMS204-B_150911A	213	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:32 / dck		ICPMS204-B_150914B	114	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 11:12 / sld		ICP2-HE_150911A	30	R109297
Cadmium	0.00009	mg/L		0.00003		E200.8	09/12/15 09:00 / dck		ICPMS204-B_150911A	213	R109296
Calcium	51	mg/L		1		E200.7	09/11/15 11:12 / sld		ICP2-HE_150911A	30	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 09:00 / dck		ICPMS204-B_150911A	213	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 09:00 / dck		ICPMS204-B_150911A	213	R109296
Copper	0.009	mg/L		0.001		E200.8	09/12/15 09:00 / dck		ICPMS204-B_150911A	213	R109296
Iron	0.04	mg/L		0.02		E200.8	09/14/15 18:32 / dck		ICPMS204-B_150914B	114	R109332

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A
Lab ID: H15090206-004
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 12:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 09:00 / dck		ICPMS204-B_150911A	213	R109296
Magnesium	13	mg/L		1		E200.7	09/11/15 11:12 / sld		ICP2-HE_150911A	30	R109297
Manganese	0.107	mg/L		0.001		E200.8	09/12/15 09:00 / dck		ICPMS204-B_150911A	213	R109296
Mercury	ND	mg/L		5E-06		E245.1	09/17/15 19:02 / dck	09/17/15 10:26	HGCV202-H_150917A	65	30560
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 09:00 / dck		ICPMS204-B_150911A	213	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 09:00 / dck		ICPMS204-B_150911A	213	R109296
Potassium	6	mg/L		1		E200.7	09/11/15 11:12 / sld		ICP2-HE_150911A	30	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 09:00 / dck		ICPMS204-B_150911A	213	R109296
Silver	ND	mg/L		0.0002		E200.8	09/14/15 18:32 / dck		ICPMS204-B_150914B	114	R109332
Sodium	32	mg/L		1		E200.7	09/11/15 11:12 / sld		ICP2-HE_150911A	30	R109297
Uranium	0.0048	mg/L		0.0002		E200.8	09/12/15 09:00 / dck		ICPMS204-B_150911A	213	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 09:00 / dck		ICPMS204-B_150911A	213	R109296
Zinc	0.043	mg/L		0.008		E200.8	09/14/15 18:32 / dck		ICPMS204-B_150914B	114	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.048	mg/L		0.009		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Antimony	0.0007	mg/L		0.0005		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Arsenic	0.007	mg/L		0.001		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Barium	0.041	mg/L		0.003		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:35 / dck	09/11/15 09:06	ICPMS204-B_150914B	115	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Cadmium	0.00015	mg/L		0.00003		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Calcium	52	mg/L		1		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Copper	0.013	mg/L		0.001		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Iron	0.14	mg/L		0.02		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Lead	0.0009	mg/L		0.0003		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Magnesium	12	mg/L		1		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Manganese	0.130	mg/L		0.001		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Mercury	7.0E-06	mg/L		5E-06		E245.1	09/29/15 15:42 / dck	09/29/15 09:36	HGCV202-H_150929A	44	30692
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A
Lab ID: H15090206-004
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 12:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Potassium	6	mg/L		1		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Silver	0.0002	mg/L		0.0002		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Sodium	28	mg/L		1		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Uranium	0.0053	mg/L		0.0002		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 09:13 / dck	09/11/15 09:06	ICPMS204-B_150911A	217	30478
Zinc	0.049	mg/L		0.008		E200.8	09/14/15 18:35 / dck	09/11/15 09:06	ICPMS204-B_150914B	115	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B
Lab ID: H15090206-005
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 11:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	5	mg/L		1		A2540 D	09/10/15 14:04 / SR		L24 (14410200)_150910A	11	TSS150910A
Solids, Volatile Suspended	2	mg/L		1		A2540 E	09/11/15 09:14 / SR		MISC WC_150911A	10	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	09/11/15 10:44 / SR		PHSC_101-H_150911A	19	R109270
Bicarbonate as HCO3	130	mg/L		4		A2320 B	09/11/15 10:44 / SR		PHSC_101-H_150911A	19	R109270
Chloride	32	mg/L		1		E300.0	09/11/15 13:10 / SR		IC102-H_150911A	25	R109307
Sulfate	98	mg/L		1		E300.0	09/11/15 13:10 / SR		IC102-H_150911A	25	R109307
Hardness as CaCO3	180	mg/L		1		A2340 B	09/11/15 11:34 / abc		CALC_150914B	113	R109330
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.3	mg/L		0.5		A5310 C	09/18/15 06:05 / eli-c		SUB-C204267	17	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	0.54	mg/L		0.05		E350.1	09/14/15 14:40 / cm		FIA203-HE_150914B	35	R109340
Nitrogen, Nitrate+Nitrite as N	3.01	mg/L		0.02		E353.2	09/15/15 12:35 / cm		FIA203-HE_150915B	118	R109381
Nitrogen, Total	18.8	mg/L	D	0.8		A4500 N-C	09/17/15 11:19 / cm	09/16/15 12:10	FIA203-HE_150918A	21	30537
Phosphorus, Total as P	0.412	mg/L		0.003		E365.1	09/15/15 14:59 / cm	09/14/15 12:37	FIA202-HE_150915A	21	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 09:16 / dck		ICPMS204-B_150911A	218	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 09:16 / dck		ICPMS204-B_150911A	218	R109296
Arsenic	0.006	mg/L		0.001		E200.8	09/12/15 09:16 / dck		ICPMS204-B_150911A	218	R109296
Barium	0.042	mg/L		0.003		E200.8	09/12/15 09:16 / dck		ICPMS204-B_150911A	218	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:37 / dck		ICPMS204-B_150914B	116	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 11:34 / sld		ICP2-HE_150911A	36	R109297
Cadmium	0.00009	mg/L		0.00003		E200.8	09/12/15 09:16 / dck		ICPMS204-B_150911A	218	R109296
Calcium	51	mg/L		1		E200.7	09/11/15 11:34 / sld		ICP2-HE_150911A	36	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 09:16 / dck		ICPMS204-B_150911A	218	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 09:16 / dck		ICPMS204-B_150911A	218	R109296
Copper	0.008	mg/L		0.001		E200.8	09/12/15 09:16 / dck		ICPMS204-B_150911A	218	R109296
Iron	0.04	mg/L		0.02		E200.8	09/14/15 18:37 / dck		ICPMS204-B_150914B	116	R109332

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B
Lab ID: H15090206-005
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 11:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 09:16 / dck		ICPMS204-B_150911A	218	R109296
Magnesium	13	mg/L		1		E200.7	09/11/15 11:34 / sld		ICP2-HE_150911A	36	R109297
Manganese	0.121	mg/L		0.001		E200.8	09/12/15 09:16 / dck		ICPMS204-B_150911A	218	R109296
Mercury	5.6E-06	mg/L		5E-06		E245.1	09/29/15 15:53 / dck	09/29/15 09:36	HGCV202-H_150929A	47	30692
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 09:16 / dck		ICPMS204-B_150911A	218	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 09:16 / dck		ICPMS204-B_150911A	218	R109296
Potassium	6	mg/L		1		E200.7	09/11/15 11:34 / sld		ICP2-HE_150911A	36	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 09:16 / dck		ICPMS204-B_150911A	218	R109296
Silver	ND	mg/L		0.0002		E200.8	09/14/15 18:37 / dck		ICPMS204-B_150914B	116	R109332
Sodium	31	mg/L		1		E200.7	09/11/15 11:34 / sld		ICP2-HE_150911A	36	R109297
Uranium	0.0047	mg/L		0.0002		E200.8	09/12/15 09:16 / dck		ICPMS204-B_150911A	218	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 09:16 / dck		ICPMS204-B_150911A	218	R109296
Zinc	0.048	mg/L		0.008		E200.8	09/14/15 18:37 / dck		ICPMS204-B_150914B	116	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.049	mg/L		0.009		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Arsenic	0.007	mg/L		0.001		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Barium	0.043	mg/L		0.003		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:40 / dck	09/11/15 09:06	ICPMS204-B_150914B	117	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Cadmium	0.00018	mg/L		0.00003		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Calcium	51	mg/L		1		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Copper	0.014	mg/L		0.001		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Iron	0.14	mg/L		0.02		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Lead	0.0009	mg/L		0.0003		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Magnesium	12	mg/L		1		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Manganese	0.140	mg/L		0.001		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Mercury	8.6E-06	mg/L		5E-06		E245.1	09/29/15 15:56 / dck	09/29/15 09:36	HGCV202-H_150929A	48	30692
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B
Lab ID: H15090206-005
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 11:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	0.002	mg/L		0.002		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Potassium	6	mg/L		1		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Silver	ND	mg/L		0.0002		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Sodium	28	mg/L		1		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Uranium	0.0051	mg/L		0.0002		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 09:19 / dck	09/11/15 09:06	ICPMS204-B_150911A	219	30478
Zinc	0.054	mg/L		0.008		E200.8	09/14/15 18:40 / dck	09/11/15 09:06	ICPMS204-B_150914B	117	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Duplicate #2
Lab ID: H15090206-006
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 11:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	5	mg/L		1		A2540 D	09/10/15 14:04 / SR		L24 (14410200)_150910A	12	TSS150910A
Solids, Volatile Suspended	2	mg/L		1		A2540 E	09/11/15 09:14 / SR		MISC WC_150911A	11	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	09/11/15 10:50 / SR		PHSC_101-H_150911A	21	R109270
Bicarbonate as HCO3	130	mg/L		4		A2320 B	09/11/15 10:50 / SR		PHSC_101-H_150911A	21	R109270
Chloride	32	mg/L		1		E300.0	09/11/15 13:22 / SR		IC102-H_150911A	26	R109307
Sulfate	98	mg/L		1		E300.0	09/11/15 13:22 / SR		IC102-H_150911A	26	R109307
Hardness as CaCO3	180	mg/L		1		A2340 B	09/11/15 11:38 / abc		CALC_150914B	124	R109330
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.1	mg/L		0.5		A5310 C	09/18/15 06:21 / eli-c		SUB-C204267	18	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	0.55	mg/L		0.05		E350.1	09/14/15 14:41 / cm		FIA203-HE_150914B	36	R109340
Nitrogen, Nitrate+Nitrite as N	3.01	mg/L		0.02		E353.2	09/15/15 12:36 / cm		FIA203-HE_150915B	119	R109381
Nitrogen, Total	19.2	mg/L	D	0.8		A4500 N-C	09/17/15 11:20 / cm	09/16/15 12:10	FIA203-HE_150918A	22	30537
Phosphorus, Total as P	0.425	mg/L		0.003		E365.1	09/15/15 15:00 / cm	09/14/15 12:37	FIA202-HE_150915A	22	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 09:48 / dck		ICPMS204-B_150911A	228	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 09:48 / dck		ICPMS204-B_150911A	228	R109296
Arsenic	0.006	mg/L		0.001		E200.8	09/12/15 09:48 / dck		ICPMS204-B_150911A	228	R109296
Barium	0.043	mg/L		0.003		E200.8	09/12/15 09:48 / dck		ICPMS204-B_150911A	228	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:43 / dck		ICPMS204-B_150914B	118	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 11:38 / sld		ICP2-HE_150911A	37	R109297
Cadmium	0.00009	mg/L		0.00003		E200.8	09/12/15 09:48 / dck		ICPMS204-B_150911A	228	R109296
Calcium	51	mg/L		1		E200.7	09/11/15 11:38 / sld		ICP2-HE_150911A	37	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 09:48 / dck		ICPMS204-B_150911A	228	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 09:48 / dck		ICPMS204-B_150911A	228	R109296
Copper	0.009	mg/L		0.001		E200.8	09/12/15 09:48 / dck		ICPMS204-B_150911A	228	R109296
Iron	0.04	mg/L		0.02		E200.8	09/12/15 09:48 / dck		ICPMS204-B_150911A	228	R109296

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Duplicate #2
Lab ID: H15090206-006
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 11:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 09:48 / dck		ICPMS204-B_150911A	228	R109296
Magnesium	13	mg/L		1		E200.7	09/11/15 11:38 / sld		ICP2-HE_150911A	37	R109297
Manganese	0.123	mg/L		0.001		E200.8	09/12/15 09:48 / dck		ICPMS204-B_150911A	228	R109296
Mercury	5.3E-06	mg/L		5E-06		E245.1	09/29/15 16:00 / dck	09/29/15 09:36	HGCV202-H_150929A	49	30692
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 09:48 / dck		ICPMS204-B_150911A	228	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 09:48 / dck		ICPMS204-B_150911A	228	R109296
Potassium	6	mg/L		1		E200.7	09/11/15 11:38 / sld		ICP2-HE_150911A	37	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 09:48 / dck		ICPMS204-B_150911A	228	R109296
Silver	ND	mg/L		0.0002		E200.8	09/14/15 18:43 / dck		ICPMS204-B_150914B	118	R109332
Sodium	31	mg/L		1		E200.7	09/11/15 11:38 / sld		ICP2-HE_150911A	37	R109297
Uranium	0.0047	mg/L		0.0002		E200.8	09/12/15 09:48 / dck		ICPMS204-B_150911A	228	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 09:48 / dck		ICPMS204-B_150911A	228	R109296
Zinc	0.048	mg/L		0.008		E200.8	09/14/15 18:43 / dck		ICPMS204-B_150914B	118	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.059	mg/L		0.009		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	229	30478
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	229	30478
Arsenic	0.006	mg/L		0.001		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	229	30478
Barium	0.042	mg/L		0.003		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	229	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:45 / dck	09/11/15 09:06	ICPMS204-B_150914B	119	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	229	30478
Cadmium	0.00017	mg/L		0.00003		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	229	30478
Calcium	52	mg/L		1		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	229	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	229	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	229	30478
Copper	0.015	mg/L		0.001		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	229	30478
Iron	0.16	mg/L		0.02		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	229	30478
Lead	0.0010	mg/L		0.0003		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	229	30478
Magnesium	12	mg/L		1		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	229	30478
Manganese	0.144	mg/L		0.001		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	229	30478
Mercury	8.4E-06	mg/L		5E-06		E245.1	09/29/15 16:04 / dck	09/29/15 09:36	HGCV202-H_150929A	50	30692
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	229	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Duplicate #2
Lab ID: H15090206-006
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 11:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	: 229	30478
Potassium	7	mg/L		1		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	: 229	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	: 229	30478
Silver	ND	mg/L		0.0002		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	: 229	30478
Sodium	29	mg/L		1		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	: 229	30478
Uranium	0.0052	mg/L		0.0002		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	: 229	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 09:51 / dck	09/11/15 09:06	ICPMS204-B_150911A	: 229	30478
Zinc	0.056	mg/L		0.008		E200.8	09/14/15 18:45 / dck	09/11/15 09:06	ICPMS204-B_150914B	: 119	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C
Lab ID: H15090206-007
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 10:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	11	mg/L		1		A2540 D	09/10/15 14:05 / SR		L24 (14410200)_150910A	13	TSS150910A
Solids, Volatile Suspended	4	mg/L		1		A2540 E	09/11/15 09:14 / SR		MISC WC_150911A	12	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	09/11/15 10:56 / SR		PHSC_101-H_150911A	23	R109270
Bicarbonate as HCO3	130	mg/L		4		A2320 B	09/11/15 10:56 / SR		PHSC_101-H_150911A	23	R109270
Chloride	53	mg/L		1		E300.0	09/11/15 13:33 / SR		IC102-H_150911A	27	R109307
Sulfate	110	mg/L		1		E300.0	09/11/15 13:33 / SR		IC102-H_150911A	27	R109307
Hardness as CaCO3	217	mg/L		1		A2340 B	09/11/15 11:42 / abc		CALC_150914B	135	R109330
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.1	mg/L		0.5		A5310 C	09/18/15 06:37 / eli-c		SUB-C204267	19	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	0.09	mg/L		0.05		E350.1	09/14/15 14:45 / cm		FIA203-HE_150914B	39	R109340
Nitrogen, Nitrate+Nitrite as N	2.71	mg/L	D	0.05		E353.2	09/15/15 11:25 / cm		FIA203-HE_150915B	60	R109381
Nitrogen, Total	3.30	mg/L	D	0.06		A4500 N-C	09/16/15 15:20 / cm	09/16/15 12:10	FIA203-HE_150916D	111	30537
Phosphorus, Total as P	0.398	mg/L		0.003		E365.1	09/15/15 15:01 / cm	09/14/15 12:37	FIA202-HE_150915A	23	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 09:54 / dck		ICPMS204-B_150911A	230	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 09:54 / dck		ICPMS204-B_150911A	230	R109296
Arsenic	0.007	mg/L		0.001		E200.8	09/12/15 09:54 / dck		ICPMS204-B_150911A	230	R109296
Barium	0.046	mg/L		0.003		E200.8	09/12/15 09:54 / dck		ICPMS204-B_150911A	230	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:48 / dck		ICPMS204-B_150914B	120	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 11:42 / sld		ICP2-HE_150911A	38	R109297
Cadmium	0.00009	mg/L		0.00003		E200.8	09/12/15 09:54 / dck		ICPMS204-B_150911A	230	R109296
Calcium	63	mg/L		1		E200.7	09/11/15 11:42 / sld		ICP2-HE_150911A	38	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 09:54 / dck		ICPMS204-B_150911A	230	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 09:54 / dck		ICPMS204-B_150911A	230	R109296
Copper	0.008	mg/L		0.001		E200.8	09/12/15 09:54 / dck		ICPMS204-B_150911A	230	R109296
Iron	0.03	mg/L		0.02		E200.8	09/12/15 09:54 / dck		ICPMS204-B_150911A	230	R109296

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C
Lab ID: H15090206-007
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 10:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 09:54 / dck		ICPMS204-B_150911A	230	R109296
Magnesium	14	mg/L		1		E200.7	09/11/15 11:42 / sld		ICP2-HE_150911A	38	R109297
Manganese	0.146	mg/L		0.001		E200.8	09/12/15 09:54 / dck		ICPMS204-B_150911A	230	R109296
Mercury	5.2E-06	mg/L		5E-06		E245.1	09/29/15 16:08 / dck	09/29/15 09:36	HGCV202-H_150929A	51	30692
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 09:54 / dck		ICPMS204-B_150911A	230	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 09:54 / dck		ICPMS204-B_150911A	230	R109296
Potassium	7	mg/L		1		E200.7	09/11/15 11:42 / sld		ICP2-HE_150911A	38	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 09:54 / dck		ICPMS204-B_150911A	230	R109296
Silver	ND	mg/L		0.0002		E200.8	09/14/15 18:48 / dck		ICPMS204-B_150914B	120	R109332
Sodium	36	mg/L		1		E200.7	09/11/15 11:42 / sld		ICP2-HE_150911A	38	R109297
Uranium	0.0046	mg/L		0.0002		E200.8	09/12/15 09:54 / dck		ICPMS204-B_150911A	230	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 09:54 / dck		ICPMS204-B_150911A	230	R109296
Zinc	0.053	mg/L		0.008		E200.8	09/14/15 18:48 / dck		ICPMS204-B_150914B	120	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.097	mg/L		0.009		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Arsenic	0.008	mg/L		0.001		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Barium	0.049	mg/L		0.003		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:50 / dck	09/11/15 09:06	ICPMS204-B_150914B	121	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Cadmium	0.00027	mg/L		0.00003		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Calcium	63	mg/L		1		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Copper	0.017	mg/L		0.001		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Iron	0.22	mg/L		0.02		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Lead	0.0016	mg/L		0.0003		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Magnesium	14	mg/L		1		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Manganese	0.200	mg/L		0.001		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Mercury	0.000011	mg/L		5E-06		E245.1	09/29/15 16:19 / dck	09/29/15 09:36	HGCV202-H_150929A	54	30692
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C
Lab ID: H15090206-007
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 10:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Potassium	7	mg/L		1		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Silver	ND	mg/L		0.0002		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Sodium	33	mg/L		1		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Uranium	0.0050	mg/L		0.0002		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 09:58 / dck	09/11/15 09:06	ICPMS204-B_150911A	231	30478
Zinc	0.079	mg/L		0.008		E200.8	09/14/15 18:50 / dck	09/11/15 09:06	ICPMS204-B_150914B	121	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D
Lab ID: H15090206-008
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 09:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	12	mg/L	D	2		A2540 D	09/10/15 14:05 / SR		L24 (14410200)_150910A	14	TSS150910A
Solids, Volatile Suspended	5	mg/L		1		A2540 E	09/11/15 09:14 / SR		MISC WC_150911A	13	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	09/11/15 11:01 / SR		PHSC_101-H_150911A	25	R109270
Bicarbonate as HCO3	130	mg/L		4		A2320 B	09/11/15 11:01 / SR		PHSC_101-H_150911A	25	R109270
Chloride	53	mg/L		1		E300.0	09/11/15 13:44 / SR		IC102-H_150911A	28	R109307
Sulfate	109	mg/L		1		E300.0	09/11/15 13:44 / SR		IC102-H_150911A	28	R109307
Hardness as CaCO3	216	mg/L		1		A2340 B	09/11/15 11:46 / abc		CALC_150914B	146	R109330
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.0	mg/L		0.5		A5310 C	09/18/15 06:58 / eli-c		SUB-C204267	20	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	0.07	mg/L		0.05		E350.1	09/14/15 14:49 / cm		FIA203-HE_150914B	42	R109340
Nitrogen, Nitrate+Nitrite as N	2.63	mg/L		0.02		E353.2	09/15/15 12:54 / cm		FIA203-HE_150915B	134	R109381
Nitrogen, Total	6.5	mg/L	D	0.1		A4500 N-C	09/17/15 11:23 / cm	09/16/15 12:10	FIA203-HE_150918A	24	30537
Phosphorus, Total as P	0.354	mg/L		0.003		E365.1	09/15/15 15:02 / cm	09/14/15 12:37	FIA202-HE_150915A	24	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 10:01 / dck		ICPMS204-B_150911A	232	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 10:01 / dck		ICPMS204-B_150911A	232	R109296
Arsenic	0.007	mg/L		0.001		E200.8	09/12/15 10:01 / dck		ICPMS204-B_150911A	232	R109296
Barium	0.046	mg/L		0.003		E200.8	09/12/15 10:01 / dck		ICPMS204-B_150911A	232	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 18:53 / dck		ICPMS204-B_150914B	122	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 11:46 / sld		ICP2-HE_150911A	39	R109297
Cadmium	0.00009	mg/L		0.00003		E200.8	09/12/15 10:01 / dck		ICPMS204-B_150911A	232	R109296
Calcium	63	mg/L		1		E200.7	09/11/15 11:46 / sld		ICP2-HE_150911A	39	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 10:01 / dck		ICPMS204-B_150911A	232	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 10:01 / dck		ICPMS204-B_150911A	232	R109296
Copper	0.007	mg/L		0.001		E200.8	09/12/15 10:01 / dck		ICPMS204-B_150911A	232	R109296
Iron	0.03	mg/L		0.02		E200.8	09/14/15 18:53 / dck		ICPMS204-B_150914B	122	R109332

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D
Lab ID: H15090206-008
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 09:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 10:01 / dck		ICPMS204-B_150911A	232	R109296
Magnesium	14	mg/L		1		E200.7	09/11/15 11:46 / sld		ICP2-HE_150911A	39	R109297
Manganese	0.148	mg/L		0.001		E200.8	09/12/15 10:01 / dck		ICPMS204-B_150911A	232	R109296
Mercury	5.2E-06	mg/L		5E-06		E245.1	09/29/15 16:23 / dck	09/29/15 09:36	HGCV202-H_150929A	55	30692
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 10:01 / dck		ICPMS204-B_150911A	232	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 10:01 / dck		ICPMS204-B_150911A	232	R109296
Potassium	7	mg/L		1		E200.7	09/11/15 11:46 / sld		ICP2-HE_150911A	39	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 10:01 / dck		ICPMS204-B_150911A	232	R109296
Silver	ND	mg/L		0.0002		E200.8	09/14/15 18:53 / dck		ICPMS204-B_150914B	122	R109332
Sodium	36	mg/L		1		E200.7	09/11/15 11:46 / sld		ICP2-HE_150911A	39	R109297
Uranium	0.0043	mg/L		0.0002		E200.8	09/12/15 10:01 / dck		ICPMS204-B_150911A	232	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 10:01 / dck		ICPMS204-B_150911A	232	R109296
Zinc	0.055	mg/L		0.008		E200.8	09/14/15 18:53 / dck		ICPMS204-B_150914B	122	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.124	mg/L		0.009		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Arsenic	0.008	mg/L		0.001		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Barium	0.049	mg/L		0.003		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 19:09 / dck	09/11/15 09:06	ICPMS204-B_150914B	128	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Cadmium	0.00024	mg/L		0.00003		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Calcium	62	mg/L		1		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Copper	0.018	mg/L		0.001		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Iron	0.26	mg/L		0.02		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Lead	0.0017	mg/L		0.0003		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Magnesium	13	mg/L		1		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Manganese	0.207	mg/L		0.001		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Mercury	0.000011	mg/L		5E-06		E245.1	09/29/15 16:26 / dck	09/29/15 09:36	HGCV202-H_150929A	56	30692
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D
Lab ID: H15090206-008
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 09:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Potassium	7	mg/L		1		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Silver	ND	mg/L		0.0002		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Sodium	32	mg/L		1		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Uranium	0.0049	mg/L		0.0002		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 10:04 / dck	09/11/15 09:06	ICPMS204-B_150911A	233	30478
Zinc	0.083	mg/L		0.008		E200.8	09/14/15 19:09 / dck	09/11/15 09:06	ICPMS204-B_150914B	128	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #2
Lab ID: H15090206-009
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 08:45
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	ND	mg/L		1		A2540 D	09/10/15 14:05 / SR		L24 (14410200)_150910A	16	TSS150910A
Solids, Volatile Suspended	ND	mg/L		1		A2540 E	09/11/15 09:14 / SR		MISC WC_150911A	15	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	ND	mg/L		4		A2320 B	09/11/15 11:06 / SR		PHSC_101-H_150911A	27	R109270
Bicarbonate as HCO3	ND	mg/L		4		A2320 B	09/11/15 11:06 / SR		PHSC_101-H_150911A	27	R109270
Chloride	ND	mg/L		1		E300.0	09/11/15 13:55 / SR		IC102-H_150911A	29	R109307
Sulfate	ND	mg/L		1		E300.0	09/11/15 13:55 / SR		IC102-H_150911A	29	R109307
Hardness as CaCO3	ND	mg/L		1		A2340 B	09/15/15 10:08 / sld		WATERCALC_150915B	15	R109361
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	ND	mg/L		0.5		A5310 C	09/18/15 07:13 / eli-c		SUB-C204267	21	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/14/15 14:50 / cm		FIA203-HE_150914B	43	R109340
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.02		E353.2	09/15/15 11:15 / cm		FIA203-HE_150915B	52	R109381
Nitrogen, Total	ND	mg/L		0.05		A4500 N-C	09/17/15 11:26 / cm	09/16/15 12:10	FIA203-HE_150918A	27	30537
Phosphorus, Total as P	ND	mg/L		0.003		E365.1	09/15/15 15:03 / cm	09/14/15 12:37	FIA202-HE_150915A	25	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 10:07 / dck		ICPMS204-B_150911A	234	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 10:07 / dck		ICPMS204-B_150911A	234	R109296
Arsenic	ND	mg/L		0.001		E200.8	09/12/15 10:07 / dck		ICPMS204-B_150911A	234	R109296
Barium	ND	mg/L		0.003		E200.8	09/12/15 10:07 / dck		ICPMS204-B_150911A	234	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 19:12 / dck		ICPMS204-B_150914B	129	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 11:49 / sld		ICP2-HE_150911A	40	R109297
Cadmium	ND	mg/L		0.00003		E200.8	09/12/15 10:07 / dck		ICPMS204-B_150911A	234	R109296
Calcium	ND	mg/L		1		E200.7	09/11/15 11:49 / sld		ICP2-HE_150911A	40	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 10:07 / dck		ICPMS204-B_150911A	234	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 10:07 / dck		ICPMS204-B_150911A	234	R109296
Copper	ND	mg/L		0.001		E200.8	09/12/15 10:07 / dck		ICPMS204-B_150911A	234	R109296
Iron	ND	mg/L		0.02		E200.8	09/12/15 10:07 / dck		ICPMS204-B_150911A	234	R109296

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #2
Lab ID: H15090206-009
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 08:45
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 10:07 / dck		ICPMS204-B_150911A	234	R109296
Magnesium	ND	mg/L		1		E200.7	09/11/15 11:49 / sld		ICP2-HE_150911A	40	R109297
Manganese	ND	mg/L		0.001		E200.8	09/12/15 10:07 / dck		ICPMS204-B_150911A	234	R109296
Mercury	ND	mg/L		5E-06		E245.1	09/29/15 16:30 / dck	09/29/15 09:36	HGCV202-H_150929A	57	30692
Molybdenum	ND	mg/L		0.005		E200.8	09/12/15 10:07 / dck		ICPMS204-B_150911A	234	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 10:07 / dck		ICPMS204-B_150911A	234	R109296
Potassium	ND	mg/L		1		E200.7	09/11/15 11:49 / sld		ICP2-HE_150911A	40	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 10:07 / dck		ICPMS204-B_150911A	234	R109296
Silver	ND	mg/L		0.0002		E200.8	09/14/15 19:12 / dck		ICPMS204-B_150914B	129	R109332
Sodium	ND	mg/L		1		E200.7	09/11/15 11:49 / sld		ICP2-HE_150911A	40	R109297
Uranium	ND	mg/L		0.0002		E200.8	09/12/15 10:07 / dck		ICPMS204-B_150911A	234	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 10:07 / dck		ICPMS204-B_150911A	234	R109296
Zinc	0.010	mg/L		0.008		E200.8	09/14/15 19:12 / dck		ICPMS204-B_150914B	129	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Arsenic	ND	mg/L		0.001		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Barium	ND	mg/L		0.003		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 19:14 / dck	09/11/15 09:06	ICPMS204-B_150914B	130	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Cadmium	ND	mg/L		0.00003		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Calcium	ND	mg/L		1		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Copper	ND	mg/L		0.001		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Iron	ND	mg/L		0.02		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Lead	ND	mg/L		0.0003		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Magnesium	ND	mg/L		1		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Manganese	ND	mg/L		0.001		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Mercury	ND	mg/L		5E-06		E245.1	09/29/15 16:34 / dck	09/29/15 09:36	HGCV202-H_150929A	58	30692
Molybdenum	ND	mg/L		0.005		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #2
Lab ID: H15090206-009
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 08:45
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Potassium	ND	mg/L		1		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Silver	ND	mg/L		0.0002		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Sodium	ND	mg/L		1		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Uranium	ND	mg/L		0.0002		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 10:10 / dck	09/11/15 09:06	ICPMS204-B_150911A	235	30478
Zinc	ND	mg/L		0.008		E200.8	09/14/15 19:14 / dck	09/11/15 09:06	ICPMS204-B_150914B	130	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13
Lab ID: H15090206-010
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 18:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	19	mg/L		1		A2540 D	09/10/15 14:06 / SR		L24 (14410200)_150910A	17	TSS150910A
Solids, Volatile Suspended	5	mg/L		1		A2540 E	09/11/15 09:14 / SR		MISC WC_150911A	16	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	100	mg/L		4		A2320 B	09/11/15 11:12 / SR		PHSC_101-H_150911A	29	R109270
Bicarbonate as HCO3	120	mg/L		4		A2320 B	09/11/15 11:12 / SR		PHSC_101-H_150911A	29	R109270
Chloride	47	mg/L		1		E300.0	09/14/15 14:36 / SR		IC102-H_150914A	30	R109350
Sulfate	99	mg/L		1		E300.0	09/14/15 14:36 / SR		IC102-H_150914A	30	R109350
Hardness as CaCO3	202	mg/L		1		A2340 B	09/15/15 10:08 / sld		WATERCALC_150915B	16	R109361
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.8	mg/L		0.5		A5310 C	09/18/15 07:29 / eli-c		SUB-C204267	22	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/14/15 14:51 / cm		FIA203-HE_150914B	44	R109340
Nitrogen, Nitrate+Nitrite as N	2.60	mg/L		0.02		E353.2	09/15/15 12:55 / cm		FIA203-HE_150915B	135	R109381
Nitrogen, Total	5.8	mg/L	D	0.1		A4500 N-C	09/17/15 11:30 / cm	09/16/15 12:10	FIA203-HE_150918A	30	30537
Phosphorus, Total as P	0.276	mg/L		0.003		E365.1	09/14/15 15:10 / cm	09/14/15 12:37	FIA202-HE_150914A	46	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 10:14 / dck		ICPMS204-B_150911A	236	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 10:14 / dck		ICPMS204-B_150911A	236	R109296
Arsenic	0.007	mg/L		0.001		E200.8	09/12/15 10:14 / dck		ICPMS204-B_150911A	236	R109296
Barium	0.038	mg/L		0.003		E200.8	09/12/15 10:14 / dck		ICPMS204-B_150911A	236	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 19:17 / dck		ICPMS204-B_150914B	131	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 11:53 / sld		ICP2-HE_150911A	41	R109297
Cadmium	0.00006	mg/L		0.00003		E200.8	09/12/15 10:14 / dck		ICPMS204-B_150911A	236	R109296
Calcium	60	mg/L		1		E200.7	09/11/15 11:53 / sld		ICP2-HE_150911A	41	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 10:14 / dck		ICPMS204-B_150911A	236	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 10:14 / dck		ICPMS204-B_150911A	236	R109296
Copper	0.007	mg/L		0.001		E200.8	09/12/15 10:14 / dck		ICPMS204-B_150911A	236	R109296
Iron	0.03	mg/L		0.02		E200.8	09/12/15 10:14 / dck		ICPMS204-B_150911A	236	R109296

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13
Lab ID: H15090206-010
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 18:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 10:14 / dck		ICPMS204-B_150911A	236	R109296
Magnesium	14	mg/L		1		E200.7	09/11/15 11:53 / sld		ICP2-HE_150911A	41	R109297
Manganese	0.121	mg/L		0.001		E200.8	09/12/15 10:14 / dck		ICPMS204-B_150911A	236	R109296
Mercury	5.3E-06	mg/L		5E-06		E245.1	09/29/15 16:37 / dck	09/29/15 09:36	HGCV202-H_150929A	59	30692
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 10:14 / dck		ICPMS204-B_150911A	236	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 10:14 / dck		ICPMS204-B_150911A	236	R109296
Potassium	6	mg/L		1		E200.7	09/11/15 11:53 / sld		ICP2-HE_150911A	41	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 10:14 / dck		ICPMS204-B_150911A	236	R109296
Silver	ND	mg/L		0.0002		E200.8	09/14/15 19:17 / dck		ICPMS204-B_150914B	131	R109332
Sodium	35	mg/L		1		E200.7	09/11/15 11:53 / sld		ICP2-HE_150911A	41	R109297
Uranium	0.0052	mg/L		0.0002		E200.8	09/12/15 10:14 / dck		ICPMS204-B_150911A	236	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 10:14 / dck		ICPMS204-B_150911A	236	R109296
Zinc	0.021	mg/L		0.008		E200.8	09/14/15 19:17 / dck		ICPMS204-B_150914B	131	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.204	mg/L		0.009		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Arsenic	0.007	mg/L		0.001		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Barium	0.044	mg/L		0.003		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 19:20 / dck	09/11/15 09:06	ICPMS204-B_150914B	132	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Cadmium	0.00030	mg/L		0.00003		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Calcium	59	mg/L		1		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Copper	0.019	mg/L		0.001		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Iron	0.38	mg/L		0.02		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Lead	0.0025	mg/L		0.0003		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Magnesium	13	mg/L		1		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Manganese	0.211	mg/L		0.001		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Mercury	0.000013	mg/L		5E-06		E245.1	09/29/15 16:49 / dck	09/29/15 09:36	HGCV202-H_150929A	62	30692
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13
Lab ID: H15090206-010
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 18:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	0.005	mg/L		0.002		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Potassium	6	mg/L		1		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Silver	ND	mg/L		0.0002		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Sodium	30	mg/L		1		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Uranium	0.0059	mg/L		0.0002		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 10:17 / dck	09/11/15 09:06	ICPMS204-B_150911A	237	30478
Zinc	0.064	mg/L		0.008		E200.8	09/14/15 19:20 / dck	09/11/15 09:06	ICPMS204-B_150914B	132	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14
Lab ID: H15090206-011
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 17:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	21	mg/L		1		A2540 D	09/10/15 14:06 / SR		L24 (14410200)_150910A	18	TSS150910A
Solids, Volatile Suspended	5	mg/L		1		A2540 E	09/11/15 09:14 / SR		MISC WC_150911A	17	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	09/11/15 11:18 / SR		PHSC_101-H_150911A	31	R109270
Bicarbonate as HCO3	120	mg/L		4		A2320 B	09/11/15 11:18 / SR		PHSC_101-H_150911A	31	R109270
Chloride	48	mg/L		1		E300.0	09/14/15 15:10 / SR		IC102-H_150914A	33	R109350
Sulfate	96	mg/L		1		E300.0	09/14/15 15:10 / SR		IC102-H_150914A	33	R109350
Hardness as CaCO3	199	mg/L		1		A2340 B	09/15/15 10:08 / sld		WATERCALC_150915B	17	R109361
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.1	mg/L		0.5		A5310 C	09/18/15 08:15 / eli-c		SUB-C204267	24	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	0.15	mg/L		0.05		E350.1	09/14/15 14:52 / cm		FIA203-HE_150914B	45	R109340
Nitrogen, Nitrate+Nitrite as N	2.61	mg/L	D	0.05		E353.2	09/15/15 14:23 / cm		FIA203-HE_150915B	159	R109381
Nitrogen, Total	6.2	mg/L	D	0.1		A4500 N-C	09/17/15 11:31 / cm	09/16/15 12:10	FIA203-HE_150918A	31	30537
Phosphorus, Total as P	0.315	mg/L		0.003		E365.1	09/14/15 14:55 / cm	09/14/15 12:37	FIA202-HE_150914A	31	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 10:30 / dck		ICPMS204-B_150911A	241	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 10:30 / dck		ICPMS204-B_150911A	241	R109296
Arsenic	0.007	mg/L		0.001		E200.8	09/12/15 10:30 / dck		ICPMS204-B_150911A	241	R109296
Barium	0.038	mg/L		0.003		E200.8	09/12/15 10:30 / dck		ICPMS204-B_150911A	241	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 19:22 / dck		ICPMS204-B_150914B	133	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 11:57 / sld		ICP2-HE_150911A	42	R109297
Cadmium	0.00006	mg/L		0.00003		E200.8	09/12/15 10:30 / dck		ICPMS204-B_150911A	241	R109296
Calcium	59	mg/L		1		E200.7	09/11/15 11:57 / sld		ICP2-HE_150911A	42	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 10:30 / dck		ICPMS204-B_150911A	241	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 10:30 / dck		ICPMS204-B_150911A	241	R109296
Copper	0.007	mg/L		0.001		E200.8	09/12/15 10:30 / dck		ICPMS204-B_150911A	241	R109296
Iron	0.03	mg/L		0.02		E200.8	09/12/15 10:30 / dck		ICPMS204-B_150911A	241	R109296

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14
Lab ID: H15090206-011
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 17:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 10:30 / dck		ICPMS204-B_150911A	241	R109296
Magnesium	14	mg/L		1		E200.7	09/11/15 11:57 / sld		ICP2-HE_150911A	42	R109297
Manganese	0.130	mg/L		0.001		E200.8	09/12/15 10:30 / dck		ICPMS204-B_150911A	241	R109296
Mercury	5.1E-06	mg/L		5E-06		E245.1	09/29/15 16:52 / dck	09/29/15 09:36	HGCV202-H_150929A	63	30692
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 10:30 / dck		ICPMS204-B_150911A	241	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 10:30 / dck		ICPMS204-B_150911A	241	R109296
Potassium	7	mg/L		1		E200.7	09/11/15 11:57 / sld		ICP2-HE_150911A	42	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 10:30 / dck		ICPMS204-B_150911A	241	R109296
Silver	ND	mg/L		0.0002		E200.8	09/14/15 19:22 / dck		ICPMS204-B_150914B	133	R109332
Sodium	36	mg/L		1		E200.7	09/11/15 11:57 / sld		ICP2-HE_150911A	42	R109297
Uranium	0.0052	mg/L		0.0002		E200.8	09/12/15 10:30 / dck		ICPMS204-B_150911A	241	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 10:30 / dck		ICPMS204-B_150911A	241	R109296
Zinc	0.019	mg/L		0.008		E200.8	09/14/15 19:22 / dck		ICPMS204-B_150914B	133	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.241	mg/L		0.009		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Arsenic	0.008	mg/L		0.001		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Barium	0.043	mg/L		0.003		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 19:25 / dck	09/11/15 09:06	ICPMS204-B_150914B	134	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Cadmium	0.00030	mg/L		0.00003		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Calcium	59	mg/L		1		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Copper	0.021	mg/L		0.001		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Iron	0.43	mg/L		0.02		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Lead	0.0026	mg/L		0.0003		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Magnesium	13	mg/L		1		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Manganese	0.211	mg/L		0.001		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Mercury	0.000012	mg/L		5E-06		E245.1	09/30/15 12:36 / dck	09/29/15 09:36	HGCV202-H_150930A	14	30692
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14
Lab ID: H15090206-011
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 17:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Potassium	7	mg/L		1		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Silver	ND	mg/L		0.0002		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Sodium	31	mg/L		1		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Uranium	0.0057	mg/L		0.0002		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 10:33 / dck	09/11/15 09:06	ICPMS204-B_150911A	242	30478
Zinc	0.067	mg/L		0.008		E200.8	09/14/15 19:25 / dck	09/11/15 09:06	ICPMS204-B_150914B	134	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A
Lab ID: H15090206-012
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 15:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	9	mg/L		1		A2540 D	09/10/15 14:06 / SR		L24 (14410200)_150910A	19	TSS150910A
Solids, Volatile Suspended	3	mg/L		1		A2540 E	09/11/15 09:14 / SR		MISC WC_150911A	18	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	100	mg/L		4		A2320 B	09/11/15 11:24 / SR		PHSC_101-H_150911A	33	R109270
Bicarbonate as HCO3	110	mg/L		4		A2320 B	09/11/15 11:24 / SR		PHSC_101-H_150911A	33	R109270
Chloride	47	mg/L		1		E300.0	09/14/15 15:21 / SR		IC102-H_150914A	34	R109350
Sulfate	92	mg/L		1		E300.0	09/14/15 15:21 / SR		IC102-H_150914A	34	R109350
Hardness as CaCO3	194	mg/L		1		A2340 B	09/15/15 10:08 / sld		WATERCALC_150915B	18	R109361
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.0	mg/L		0.5		A5310 C	09/18/15 09:02 / eli-c		SUB-C204267	27	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/14/15 14:53 / cm		FIA203-HE_150914B	46	R109340
Nitrogen, Nitrate+Nitrite as N	2.59	mg/L		0.02		E353.2	09/15/15 14:26 / cm		FIA203-HE_150915B	162	R109381
Nitrogen, Total	5.7	mg/L	D	0.1		A4500 N-C	09/17/15 11:32 / cm	09/16/15 12:10	FIA203-HE_150918A	32	30537
Phosphorus, Total as P	0.263	mg/L		0.003		E365.1	09/14/15 14:56 / cm	09/14/15 12:37	FIA202-HE_150914A	32	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 10:36 / dck		ICPMS204-B_150911A	243	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 10:36 / dck		ICPMS204-B_150911A	243	R109296
Arsenic	0.007	mg/L		0.001		E200.8	09/12/15 10:36 / dck		ICPMS204-B_150911A	243	R109296
Barium	0.035	mg/L		0.003		E200.8	09/12/15 10:36 / dck		ICPMS204-B_150911A	243	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 19:27 / dck		ICPMS204-B_150914B	135	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 12:08 / sld		ICP2-HE_150911A	45	R109297
Cadmium	0.00006	mg/L		0.00003		E200.8	09/12/15 10:36 / dck		ICPMS204-B_150911A	243	R109296
Calcium	60	mg/L		1		E200.7	09/11/15 12:08 / sld		ICP2-HE_150911A	45	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 10:36 / dck		ICPMS204-B_150911A	243	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 10:36 / dck		ICPMS204-B_150911A	243	R109296
Copper	0.007	mg/L		0.001		E200.8	09/12/15 10:36 / dck		ICPMS204-B_150911A	243	R109296
Iron	ND	mg/L		0.02		E200.8	09/12/15 10:36 / dck		ICPMS204-B_150911A	243	R109296

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A
Lab ID: H15090206-012
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 15:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 10:36 / dck		ICPMS204-B_150911A	243	R109296
Magnesium	14	mg/L		1		E200.7	09/11/15 12:08 / sld		ICP2-HE_150911A	45	R109297
Manganese	0.059	mg/L		0.001		E200.8	09/12/15 10:36 / dck		ICPMS204-B_150911A	243	R109296
Mercury	5.2E-06	mg/L		5E-06		E245.1	09/30/15 12:40 / dck	09/29/15 09:36	HGCV202-H_150930A	15	30692
Molybdenum	0.005	mg/L		0.005		E200.8	09/12/15 10:36 / dck		ICPMS204-B_150911A	243	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 10:36 / dck		ICPMS204-B_150911A	243	R109296
Potassium	7	mg/L		1		E200.7	09/11/15 12:08 / sld		ICP2-HE_150911A	45	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 10:36 / dck		ICPMS204-B_150911A	243	R109296
Silver	ND	mg/L		0.0002		E200.8	09/14/15 19:27 / dck		ICPMS204-B_150914B	135	R109332
Sodium	36	mg/L		1		E200.7	09/11/15 12:08 / sld		ICP2-HE_150911A	45	R109297
Uranium	0.0043	mg/L		0.0002		E200.8	09/12/15 10:36 / dck		ICPMS204-B_150911A	243	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 10:36 / dck		ICPMS204-B_150911A	243	R109296
Zinc	0.018	mg/L		0.008		E200.8	09/14/15 19:27 / dck		ICPMS204-B_150914B	135	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.107	mg/L		0.009		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Arsenic	0.007	mg/L		0.001		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Barium	0.036	mg/L		0.003		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 19:30 / dck	09/11/15 09:06	ICPMS204-B_150914B	136	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Cadmium	0.00015	mg/L		0.00003		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Calcium	57	mg/L		1		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Copper	0.012	mg/L		0.001		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Iron	0.18	mg/L		0.02		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Lead	0.0014	mg/L		0.0003		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Magnesium	12	mg/L		1		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Manganese	0.123	mg/L		0.001		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Mercury	9.4E-06	mg/L		5E-06		E245.1	09/30/15 12:44 / dck	09/29/15 09:36	HGCV202-H_150930A	16	30692
Molybdenum	0.006	mg/L		0.005		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A
Lab ID: H15090206-012
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 15:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Potassium	7	mg/L		1		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Silver	ND	mg/L		0.0002		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Sodium	30	mg/L		1		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Uranium	0.0047	mg/L		0.0002		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 10:39 / dck	09/11/15 09:06	ICPMS204-B_150911A	244	30478
Zinc	0.039	mg/L		0.008		E200.8	09/14/15 19:30 / dck	09/11/15 09:06	ICPMS204-B_150914B	136	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B
Lab ID: H15090206-013
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 13:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	6	mg/L		1		A2540 D	09/10/15 14:07 / SR		L24 (14410200)_150910A	20	TSS150910A
Solids, Volatile Suspended	3	mg/L		1		A2540 E	09/11/15 09:15 / SR		MISC WC_150911A	19	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	09/11/15 11:31 / SR		PHSC_101-H_150911A	35	R109270
Bicarbonate as HCO3	120	mg/L		4		A2320 B	09/11/15 11:31 / SR		PHSC_101-H_150911A	35	R109270
Chloride	33	mg/L		1		E300.0	09/14/15 15:32 / SR		IC102-H_150914A	35	R109350
Sulfate	73	mg/L		1		E300.0	09/14/15 15:32 / SR		IC102-H_150914A	35	R109350
Hardness as CaCO3	177	mg/L		1		A2340 B	09/15/15 10:08 / sld		WATERCALC_150915B	19	R109361
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.6	mg/L		0.5		A5310 C	09/18/15 09:18 / eli-c		SUB-C204267	28	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/14/15 14:55 / cm		FIA203-HE_150914B	47	R109340
Nitrogen, Nitrate+Nitrite as N	1.96	mg/L		0.02		E353.2	09/15/15 11:20 / cm		FIA203-HE_150915B	56	R109381
Nitrogen, Total	4.2	mg/L	D	0.1		A4500 N-C	09/17/15 11:33 / cm	09/16/15 12:10	FIA203-HE_150918A	33	30537
Phosphorus, Total as P	0.203	mg/L		0.003		E365.1	09/14/15 14:57 / cm	09/14/15 12:37	FIA202-HE_150914A	33	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 10:43 / dck		ICPMS204-B_150911A	245	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 10:43 / dck		ICPMS204-B_150911A	245	R109296
Arsenic	0.006	mg/L		0.001		E200.8	09/12/15 10:43 / dck		ICPMS204-B_150911A	245	R109296
Barium	0.032	mg/L		0.003		E200.8	09/12/15 10:43 / dck		ICPMS204-B_150911A	245	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 19:33 / dck		ICPMS204-B_150914B	137	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 12:12 / sld		ICP2-HE_150911A	46	R109297
Cadmium	0.00004	mg/L		0.00003		E200.8	09/12/15 10:43 / dck		ICPMS204-B_150911A	245	R109296
Calcium	54	mg/L		1		E200.7	09/11/15 12:12 / sld		ICP2-HE_150911A	46	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 10:43 / dck		ICPMS204-B_150911A	245	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 10:43 / dck		ICPMS204-B_150911A	245	R109296
Copper	0.005	mg/L		0.001		E200.8	09/12/15 10:43 / dck		ICPMS204-B_150911A	245	R109296
Iron	ND	mg/L		0.02		E200.8	09/12/15 10:43 / dck		ICPMS204-B_150911A	245	R109296

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B
Lab ID: H15090206-013
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 13:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 10:43 / dck		ICPMS204-B_150911A	245	R109296
Magnesium	12	mg/L		1		E200.7	09/11/15 12:12 / sld		ICP2-HE_150911A	46	R109297
Manganese	0.053	mg/L		0.001		E200.8	09/12/15 10:43 / dck		ICPMS204-B_150911A	245	R109296
Mercury	ND	mg/L		5E-06		E245.1	09/30/15 12:48 / dck	09/29/15 09:36	HGCV202-H_150930A	17	30692
Molybdenum	ND	mg/L		0.005		E200.8	09/12/15 10:43 / dck		ICPMS204-B_150911A	245	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 10:43 / dck		ICPMS204-B_150911A	245	R109296
Potassium	5	mg/L		1		E200.7	09/11/15 12:12 / sld		ICP2-HE_150911A	46	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 10:43 / dck		ICPMS204-B_150911A	245	R109296
Silver	ND	mg/L		0.0002		E200.8	09/14/15 19:33 / dck		ICPMS204-B_150914B	137	R109332
Sodium	27	mg/L		1		E200.7	09/11/15 12:12 / sld		ICP2-HE_150911A	46	R109297
Uranium	0.0031	mg/L		0.0002		E200.8	09/12/15 10:43 / dck		ICPMS204-B_150911A	245	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 10:43 / dck		ICPMS204-B_150911A	245	R109296
Zinc	0.017	mg/L		0.008		E200.8	09/14/15 19:33 / dck		ICPMS204-B_150914B	137	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.063	mg/L		0.009		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Arsenic	0.006	mg/L		0.001		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Barium	0.035	mg/L		0.003		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 19:43 / dck	09/11/15 09:06	ICPMS204-B_150914B	141	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Cadmium	0.00012	mg/L		0.00003		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Calcium	52	mg/L		1		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Copper	0.009	mg/L		0.001		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Iron	0.13	mg/L		0.02		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Lead	0.0010	mg/L		0.0003		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Magnesium	11	mg/L		1		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Manganese	0.099	mg/L		0.001		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Mercury	8.2E-06	mg/L		5E-06		E245.1	09/30/15 12:51 / dck	09/29/15 09:36	HGCV202-H_150930A	18	30692
Molybdenum	ND	mg/L		0.005		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B
Lab ID: H15090206-013
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 13:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Potassium	5	mg/L		1		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Silver	ND	mg/L		0.0002		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Sodium	23	mg/L		1		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Uranium	0.0034	mg/L		0.0002		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 10:46 / dck	09/11/15 09:06	ICPMS204-B_150911A	246	30478
Zinc	0.029	mg/L		0.008		E200.8	09/14/15 19:43 / dck	09/11/15 09:06	ICPMS204-B_150914B	141	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Duplicate #1
Lab ID: H15090206-014
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 13:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	6	mg/L		1		A2540 D	09/10/15 14:07 / SR		L24 (14410200)_150910A	21	TSS150910A
Solids, Volatile Suspended	2	mg/L		1		A2540 E	09/11/15 09:15 / SR		MISC WC_150911A	20	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	09/11/15 11:37 / SR		PHSC_101-H_150911A	37	R109270
Bicarbonate as HCO3	130	mg/L		4		A2320 B	09/11/15 11:37 / SR		PHSC_101-H_150911A	37	R109270
Chloride	33	mg/L		1		E300.0	09/14/15 15:43 / SR		IC102-H_150914A	36	R109350
Sulfate	73	mg/L		1		E300.0	09/14/15 15:43 / SR		IC102-H_150914A	36	R109350
Hardness as CaCO3	177	mg/L		1		A2340 B	09/15/15 10:08 / sld		WATERCALC_150915B	20	R109361
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.6	mg/L		0.5		A5310 C	09/18/15 09:34 / eli-c		SUB-C204267	29	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/14/15 14:56 / cm		FIA203-HE_150914B	48	R109340
Nitrogen, Nitrate+Nitrite as N	1.96	mg/L		0.02		E353.2	09/15/15 11:21 / cm		FIA203-HE_150915B	57	R109381
Nitrogen, Total	4.2	mg/L	D	0.1		A4500 N-C	09/17/15 11:35 / cm	09/16/15 12:10	FIA203-HE_150918A	34	30537
Phosphorus, Total as P	0.191	mg/L		0.003		E365.1	09/14/15 14:58 / cm	09/14/15 12:37	FIA202-HE_150914A	34	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296
Arsenic	0.006	mg/L		0.001		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296
Barium	0.033	mg/L		0.003		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 19:46 / dck		ICPMS204-B_150914B	142	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 12:16 / sld		ICP2-HE_150911A	47	R109297
Cadmium	0.00004	mg/L		0.00003		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296
Calcium	55	mg/L		1		E200.7	09/11/15 12:16 / sld		ICP2-HE_150911A	47	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296
Copper	0.005	mg/L		0.001		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296
Iron	ND	mg/L		0.02		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Duplicate #1
Lab ID: H15090206-014
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 13:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296
Magnesium	12	mg/L		1		E200.7	09/11/15 12:16 / sld		ICP2-HE_150911A	47	R109297
Manganese	0.054	mg/L		0.001		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296
Mercury	ND	mg/L		5E-06		E245.1	09/30/15 12:55 / dck	09/29/15 09:36	HGCV202-H_150930A	19	30692
Molybdenum	ND	mg/L		0.005		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296
Potassium	5	mg/L		1		E200.7	09/11/15 12:16 / sld		ICP2-HE_150911A	47	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296
Silver	ND	mg/L		0.0002		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296
Sodium	27	mg/L		1		E200.7	09/11/15 12:16 / sld		ICP2-HE_150911A	47	R109297
Uranium	0.0031	mg/L		0.0002		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 10:49 / dck		ICPMS204-B_150911A	247	R109296
Zinc	0.017	mg/L		0.008		E200.8	09/14/15 19:46 / dck		ICPMS204-B_150914B	142	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.072	mg/L		0.009		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Arsenic	0.006	mg/L		0.001		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Barium	0.034	mg/L		0.003		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 19:49 / dck	09/11/15 09:06	ICPMS204-B_150914B	143	30478
Boron	ND	mg/L		0.1		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Cadmium	0.00013	mg/L		0.00003		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Calcium	53	mg/L		1		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Chromium	ND	mg/L		0.01		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Copper	0.010	mg/L		0.001		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Iron	0.13	mg/L		0.02		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Lead	0.0010	mg/L		0.0003		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Magnesium	11	mg/L		1		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Manganese	0.096	mg/L		0.001		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Mercury	6.1E-06	mg/L		5E-06		E245.1	09/28/15 16:58 / rgk	09/27/15 18:19	HGCV202-H_150928A	60	30654
Molybdenum	ND	mg/L		0.005		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Duplicate #1
Lab ID: H15090206-014
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 13:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Potassium	5	mg/L		1		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Selenium	ND	mg/L		0.001		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Silver	ND	mg/L		0.0002		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Sodium	23	mg/L		1		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Uranium	0.0034	mg/L		0.0002		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 11:08 / dck	09/11/15 09:06	ICPMS204-B_150911A	253	30478
Zinc	0.030	mg/L		0.008		E200.8	09/14/15 19:49 / dck	09/11/15 09:06	ICPMS204-B_150914B	143	30478

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B
Lab ID: H15090206-015
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 11:15
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	5	mg/L		1		A2540 D	09/10/15 14:07 / SR		L24 (14410200)_150910A	22	TSS150910A
Solids, Volatile Suspended	2	mg/L		1		A2540 E	09/11/15 09:15 / SR		MISC WC_150911A	21	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	09/11/15 11:43 / SR		PHSC_101-H_150911A	39	R109270
Bicarbonate as HCO3	130	mg/L		4		A2320 B	09/11/15 11:43 / SR		PHSC_101-H_150911A	39	R109270
Chloride	32	mg/L		1		E300.0	09/14/15 15:54 / SR		IC102-H_150914A	37	R109350
Sulfate	76	mg/L		1		E300.0	09/14/15 15:54 / SR		IC102-H_150914A	37	R109350
Hardness as CaCO3	183	mg/L		1		A2340 B	09/15/15 11:42 / sld		WATERCALC_150915C	1	R109372
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.5	mg/L		0.5		A5310 C	09/18/15 09:50 / eli-c		SUB-C204267	30	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/14/15 14:57 / cm		FIA203-HE_150914B	49	R109340
Nitrogen, Nitrate+Nitrite as N	1.68	mg/L		0.02		E353.2	09/15/15 11:23 / cm		FIA203-HE_150915B	58	R109381
Nitrogen, Total	1.88	mg/L		0.05		A4500 N-C	09/17/15 11:36 / cm	09/16/15 12:10	FIA203-HE_150918A	35	30537
Phosphorus, Total as P	0.205	mg/L		0.003		E365.1	09/14/15 14:59 / cm	09/14/15 12:37	FIA202-HE_150914A	35	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296
Arsenic	0.006	mg/L		0.001		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296
Barium	0.034	mg/L		0.003		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 19:51 / dck		ICPMS204-B_150914B	144	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 12:31 / sld		ICP2-HE_150911A	51	R109297
Cadmium	0.00008	mg/L		0.00003		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296
Calcium	55	mg/L		1		E200.7	09/11/15 12:31 / sld		ICP2-HE_150911A	51	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296
Copper	0.006	mg/L		0.001		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296
Iron	ND	mg/L		0.02		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B
Lab ID: H15090206-015
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 11:15
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296
Magnesium	12	mg/L		1		E200.7	09/11/15 12:31 / sld		ICP2-HE_150911A	51	R109297
Manganese	0.078	mg/L		0.001		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296
Mercury	ND	mg/L		5E-06		E245.1	09/28/15 17:10 / rgk	09/27/15 18:19	HGCV202-H_150928A	63	30654
Molybdenum	ND	mg/L		0.005		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296
Potassium	5	mg/L		1		E200.7	09/11/15 12:31 / sld		ICP2-HE_150911A	51	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296
Silver	ND	mg/L		0.0002		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296
Sodium	26	mg/L		1		E200.7	09/11/15 12:31 / sld		ICP2-HE_150911A	51	R109297
Uranium	0.0036	mg/L		0.0002		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 11:12 / dck		ICPMS204-B_150911A	254	R109296
Zinc	0.024	mg/L		0.008		E200.8	09/14/15 19:51 / dck		ICPMS204-B_150914B	144	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.065	mg/L		0.009		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	259	30479
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	259	30479
Arsenic	0.007	mg/L		0.001		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	259	30479
Barium	0.036	mg/L		0.003		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	259	30479
Beryllium	ND	mg/L		0.0008		E200.8	09/15/15 10:45 / dck	09/11/15 09:07	ICPMS204-B_150915A	24	30479
Boron	ND	mg/L		0.1		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	259	30479
Cadmium	0.00014	mg/L		0.00003		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	259	30479
Calcium	54	mg/L		1		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	259	30479
Chromium	ND	mg/L		0.01		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	259	30479
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	259	30479
Copper	0.009	mg/L		0.001		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	259	30479
Iron	0.12	mg/L		0.02		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	259	30479
Lead	0.0009	mg/L		0.0003		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	259	30479
Magnesium	12	mg/L		1		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	259	30479
Manganese	0.110	mg/L		0.001		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	259	30479
Mercury	7.0E-06	mg/L		5E-06		E245.1	09/28/15 17:13 / rgk	09/27/15 18:19	HGCV202-H_150928A	64	30654
Molybdenum	ND	mg/L		0.005		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	259	30479

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B
Lab ID: H15090206-015
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 11:15
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	: 259	30479
Potassium	5	mg/L		1		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	: 259	30479
Selenium	ND	mg/L		0.001		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	: 259	30479
Silver	ND	mg/L		0.0002		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	: 259	30479
Sodium	23	mg/L		1		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	: 259	30479
Uranium	0.0040	mg/L		0.0002		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	: 259	30479
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 11:28 / dck	09/11/15 09:07	ICPMS204-B_150911A	: 259	30479
Zinc	0.033	mg/L		0.008		E200.8	09/15/15 10:45 / dck	09/11/15 09:07	ICPMS204-B_150915A	: 24	30479

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D
Lab ID: H15090206-016
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 10:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	6	mg/L		1		A2540 D	09/10/15 14:07 / SR		L24 (14410200)_150910A	23	TSS150910A
Solids, Volatile Suspended	2	mg/L		1		A2540 E	09/11/15 09:15 / SR		MISC WC_150911A	22	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	09/11/15 11:48 / SR		PHSC_101-H_150911A	41	R109270
Bicarbonate as HCO3	130	mg/L		4		A2320 B	09/11/15 11:48 / SR		PHSC_101-H_150911A	41	R109270
Chloride	34	mg/L		1		E300.0	09/14/15 16:05 / SR		IC102-H_150914A	38	R109350
Sulfate	81	mg/L		1		E300.0	09/14/15 16:05 / SR		IC102-H_150914A	38	R109350
Hardness as CaCO3	186	mg/L		1		A2340 B	09/15/15 10:08 / sld		WATERCALC_150915B	21	R109361
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.6	mg/L		0.5		A5310 C	09/18/15 10:06 / eli-c		SUB-C204267	31	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/14/15 14:58 / cm		FIA203-HE_150914B	50	R109340
Nitrogen, Nitrate+Nitrite as N	1.71	mg/L		0.02		E353.2	09/15/15 11:24 / cm		FIA203-HE_150915B	59	R109381
Nitrogen, Total	3.7	mg/L	D	0.1		A4500 N-C	09/17/15 11:37 / cm	09/16/15 12:10	FIA203-HE_150918A	36	30537
Phosphorus, Total as P	0.205	mg/L		0.003		E365.1	09/14/15 15:00 / cm	09/14/15 12:37	FIA202-HE_150914A	36	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296
Arsenic	0.007	mg/L		0.001		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296
Barium	0.034	mg/L		0.003		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 19:59 / dck		ICPMS204-B_150914B	147	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 12:35 / sld		ICP2-HE_150911A	52	R109297
Cadmium	0.00016	mg/L		0.00003		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296
Calcium	56	mg/L		1		E200.7	09/11/15 12:35 / sld		ICP2-HE_150911A	52	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296
Copper	0.008	mg/L		0.001		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296
Iron	ND	mg/L		0.02		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D
Lab ID: H15090206-016
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 10:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296
Magnesium	12	mg/L		1		E200.7	09/11/15 12:35 / sld		ICP2-HE_150911A	52	R109297
Manganese	0.032	mg/L		0.001		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296
Mercury	ND	mg/L		5E-06		E245.1	09/28/15 17:17 / rgk	09/27/15 18:19	HGCV202-H_150928A	65	30654
Molybdenum	ND	mg/L		0.005		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296
Potassium	5	mg/L		1		E200.7	09/11/15 12:35 / sld		ICP2-HE_150911A	52	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296
Silver	ND	mg/L		0.0002		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296
Sodium	28	mg/L		1		E200.7	09/11/15 12:35 / sld		ICP2-HE_150911A	52	R109297
Uranium	0.0038	mg/L		0.0002		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 11:44 / dck		ICPMS204-B_150911A	264	R109296
Zinc	0.036	mg/L		0.008		E200.8	09/14/15 19:59 / dck		ICPMS204-B_150914B	147	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.114	mg/L		0.009		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	265	30479
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	265	30479
Arsenic	0.007	mg/L		0.001		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	265	30479
Barium	0.035	mg/L		0.003		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	265	30479
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 20:02 / dck	09/11/15 09:07	ICPMS204-B_150914B	148	30479
Boron	ND	mg/L		0.1		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	265	30479
Cadmium	0.00023	mg/L		0.00003		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	265	30479
Calcium	56	mg/L		1		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	265	30479
Chromium	ND	mg/L		0.01		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	265	30479
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	265	30479
Copper	0.013	mg/L		0.001		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	265	30479
Iron	0.19	mg/L		0.02		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	265	30479
Lead	0.0013	mg/L		0.0003		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	265	30479
Magnesium	12	mg/L		1		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	265	30479
Manganese	0.085	mg/L		0.001		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	265	30479
Mercury	7.4E-06	mg/L		5E-06		E245.1	09/28/15 17:21 / rgk	09/27/15 18:19	HGCV202-H_150928A	66	30654
Molybdenum	ND	mg/L		0.005		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	265	30479

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D
Lab ID: H15090206-016
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 10:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	: 265	30479
Potassium	6	mg/L		1		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	: 265	30479
Selenium	ND	mg/L		0.001		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	: 265	30479
Silver	ND	mg/L		0.0002		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	: 265	30479
Sodium	25	mg/L		1		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	: 265	30479
Uranium	0.0043	mg/L		0.0002		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	: 265	30479
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 11:47 / dck	09/11/15 09:07	ICPMS204-B_150911A	: 265	30479
Zinc	0.052	mg/L		0.008		E200.8	09/14/15 20:02 / dck	09/11/15 09:07	ICPMS204-B_150914B	: 148	30479

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #1
Lab ID: H15090206-017
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 09:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	ND	mg/L		1		A2540 D	09/10/15 14:08 / SR		L24 (14410200)_150910A	24	TSS150910A
Solids, Volatile Suspended	ND	mg/L		1		A2540 E	09/11/15 09:15 / SR		MISC WC_150911A	23	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	ND	mg/L		4		A2320 B	09/11/15 11:54 / SR		PHSC_101-H_150911A	43	R109270
Bicarbonate as HCO3	ND	mg/L		4		A2320 B	09/11/15 11:54 / SR		PHSC_101-H_150911A	43	R109270
Chloride	ND	mg/L		1		E300.0	09/14/15 16:16 / SR		IC102-H_150914A	39	R109350
Sulfate	ND	mg/L		1		E300.0	09/14/15 16:16 / SR		IC102-H_150914A	39	R109350
Hardness as CaCO3	ND	mg/L		1		A2340 B	09/15/15 10:08 / sld		WATERCALC_150915B	22	R109361
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	ND	mg/L		0.5		A5310 C	09/18/15 10:22 / eli-c		SUB-C204267	32	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/14/15 15:02 / cm		FIA203-HE_150914B	53	R109340
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.02		E353.2	09/15/15 11:31 / cm		FIA203-HE_150915B	65	R109381
Nitrogen, Total	ND	mg/L		0.05		A4500 N-C	09/17/15 11:38 / cm	09/16/15 12:10	FIA203-HE_150918A	37	30537
Phosphorus, Total as P	ND	mg/L		0.003		E365.1	09/14/15 15:01 / cm	09/14/15 12:37	FIA202-HE_150914A	37	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296
Arsenic	ND	mg/L		0.001		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296
Barium	ND	mg/L		0.003		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 20:05 / dck		ICPMS204-B_150914B	149	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 12:38 / sld		ICP2-HE_150911A	53	R109297
Cadmium	ND	mg/L		0.00003		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296
Calcium	ND	mg/L		1		E200.7	09/11/15 12:38 / sld		ICP2-HE_150911A	53	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296
Copper	ND	mg/L		0.001		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296
Iron	ND	mg/L		0.02		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #1
Lab ID: H15090206-017
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 09:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296
Magnesium	ND	mg/L		1		E200.7	09/11/15 12:38 / sld		ICP2-HE_150911A	53	R109297
Manganese	ND	mg/L		0.001		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296
Mercury	ND	mg/L		5E-06		E245.1	09/28/15 17:25 / rgk	09/27/15 18:19	HGCV202-H_150928A	67	30654
Molybdenum	ND	mg/L		0.005		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296
Potassium	ND	mg/L		1		E200.7	09/11/15 12:38 / sld		ICP2-HE_150911A	53	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296
Silver	ND	mg/L		0.0002		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296
Sodium	ND	mg/L		1		E200.7	09/11/15 12:38 / sld		ICP2-HE_150911A	53	R109297
Uranium	ND	mg/L		0.0002		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 11:50 / dck		ICPMS204-B_150911A	266	R109296
Zinc	0.009	mg/L		0.008		E200.8	09/14/15 20:05 / dck		ICPMS204-B_150914B	149	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Arsenic	ND	mg/L		0.001		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Barium	ND	mg/L		0.003		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 20:07 / dck	09/11/15 09:07	ICPMS204-B_150914B	150	30479
Boron	ND	mg/L		0.1		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Cadmium	ND	mg/L		0.00003		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Calcium	ND	mg/L		1		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Chromium	ND	mg/L		0.01		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Copper	ND	mg/L		0.001		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Iron	ND	mg/L		0.02		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Lead	ND	mg/L		0.0003		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Magnesium	ND	mg/L		1		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Manganese	ND	mg/L		0.001		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Mercury	ND	mg/L		5E-06		E245.1	09/28/15 17:28 / rgk	09/27/15 18:19	HGCV202-H_150928A	68	30654
Molybdenum	ND	mg/L		0.005		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #1
Lab ID: H15090206-017
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 09:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Potassium	ND	mg/L		1		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Selenium	ND	mg/L		0.001		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Silver	ND	mg/L		0.0002		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Sodium	ND	mg/L		1		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Uranium	ND	mg/L		0.0002		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 11:53 / dck	09/11/15 09:07	ICPMS204-B_150911A	267	30479
Zinc	ND	mg/L		0.008		E200.8	09/14/15 20:07 / dck	09/11/15 09:07	ICPMS204-B_150914B	150	30479

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19
Lab ID: H15090206-018
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 08:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	8	mg/L	D	2		A2540 D	09/10/15 14:09 / SR		L24 (14410200)_150910A	27	TSS150910A
Solids, Volatile Suspended	3	mg/L		1		A2540 E	09/11/15 09:15 / SR		MISC WC_150911A	25	150911A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	09/11/15 11:59 / SR		PHSC_101-H_150911A	45	R109270
Bicarbonate as HCO3	130	mg/L		4		A2320 B	09/11/15 11:59 / SR		PHSC_101-H_150911A	45	R109270
Chloride	33	mg/L		1		E300.0	09/14/15 16:27 / SR		IC102-H_150914A	40	R109350
Sulfate	82	mg/L		1		E300.0	09/14/15 16:27 / SR		IC102-H_150914A	40	R109350
Hardness as CaCO3	186	mg/L		1		A2340 B	09/15/15 10:08 / sld		WATERCALC_150915B	23	R109361
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.5	mg/L		0.5		A5310 C	09/18/15 10:37 / eli-c		SUB-C204267	33	C_R204267
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	09/14/15 15:05 / cm		FIA203-HE_150914B	56	R109340
Nitrogen, Nitrate+Nitrite as N	1.54	mg/L		0.02		E353.2	09/15/15 11:35 / cm		FIA203-HE_150915B	68	R109381
Nitrogen, Total	1.79	mg/L		0.05		A4500 N-C	09/17/15 11:39 / cm	09/16/15 12:10	FIA203-HE_150918A	38	30537
Phosphorus, Total as P	0.210	mg/L		0.003		E365.1	09/14/15 15:02 / cm	09/14/15 12:37	FIA202-HE_150914A	38	30498
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296
Arsenic	0.007	mg/L		0.001		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296
Barium	0.035	mg/L		0.003		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 20:18 / dck		ICPMS204-B_150914B	154	R109332
Boron	ND	mg/L		0.1		E200.7	09/11/15 12:42 / sld		ICP2-HE_150911A	54	R109297
Cadmium	0.00012	mg/L		0.00003		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296
Calcium	55	mg/L		1		E200.7	09/11/15 12:42 / sld		ICP2-HE_150911A	54	R109297
Chromium	ND	mg/L		0.01		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296
Copper	0.008	mg/L		0.001		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296
Iron	ND	mg/L		0.02		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19
Lab ID: H15090206-018
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 08:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296
Magnesium	12	mg/L		1		E200.7	09/11/15 12:42 / sld		ICP2-HE_150911A	54	R109297
Manganese	0.026	mg/L		0.001		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296
Mercury	ND	mg/L		5E-06		E245.1	09/28/15 17:39 / rgk	09/27/15 18:19	HGCV202-H_150928A	71	30654
Molybdenum	ND	mg/L		0.005		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296
Nickel	ND	mg/L		0.002		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296
Potassium	5	mg/L		1		E200.7	09/11/15 12:42 / sld		ICP2-HE_150911A	54	R109297
Selenium	ND	mg/L		0.001		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296
Silver	ND	mg/L		0.0002		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296
Sodium	29	mg/L		1		E200.7	09/11/15 12:42 / sld		ICP2-HE_150911A	54	R109297
Uranium	0.0040	mg/L		0.0002		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 11:57 / dck		ICPMS204-B_150911A	268	R109296
Zinc	0.037	mg/L		0.008		E200.8	09/14/15 20:18 / dck		ICPMS204-B_150914B	154	R109332
METALS, TOTAL RECOVERABLE											
Aluminum	0.113	mg/L		0.009		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Antimony	ND	mg/L		0.0005		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Arsenic	0.007	mg/L		0.001		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Barium	0.037	mg/L		0.003		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Beryllium	ND	mg/L		0.0008		E200.8	09/14/15 20:29 / dck	09/11/15 09:07	ICPMS204-B_150914B	158	30479
Boron	ND	mg/L		0.1		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Cadmium	0.00024	mg/L		0.00003		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Calcium	55	mg/L		1		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Chromium	ND	mg/L		0.01		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Cobalt	ND	mg/L		0.01		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Copper	0.013	mg/L		0.001		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Iron	0.19	mg/L		0.02		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Lead	0.0013	mg/L		0.0003		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Magnesium	12	mg/L		1		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Manganese	0.080	mg/L		0.001		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Mercury	8.0E-06	mg/L		5E-06		E245.1	09/29/15 11:21 / dck	09/27/15 18:19	HGCV202-H_150929A	12	30654
Molybdenum	ND	mg/L		0.005		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19
Lab ID: H15090206-018
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 08:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Potassium	5	mg/L		1		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Selenium	ND	mg/L		0.001		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Silver	ND	mg/L		0.0002		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Sodium	26	mg/L		1		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Uranium	0.0046	mg/L		0.0002		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Vanadium	ND	mg/L		0.1		E200.8	09/12/15 12:00 / dck	09/11/15 09:07	ICPMS204-B_150911A	269	30479
Zinc	0.056	mg/L		0.008		E200.8	09/14/15 20:29 / dck	09/11/15 09:07	ICPMS204-B_150914B	158	30479

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G Sediment Sieve <0.065mm
Lab ID: H15090206-019
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 15:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	0.7	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	10	R109505
PHYSICAL CHARACTERISTICS											
Moisture	68.9	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	18	R109875
3050 EXTRACTABLE METALS											
Aluminum	18100	mg/kg-dry		10		SW6010B	09/21/15 00:10 / sld	09/17/15 15:14	ICP2-HE_150920A	92	30566
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 19:20 / dck	09/17/15 15:14	ICPMS204-B_150924B	38	30566
Arsenic	90	mg/kg-dry		5		SW6020	09/24/15 19:20 / dck	09/17/15 15:14	ICPMS204-B_150924B	38	30566
Barium	518	mg/kg-dry		5		SW6010B	09/21/15 00:10 / sld	09/17/15 15:14	ICP2-HE_150920A	92	30566
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 00:10 / sld	09/17/15 15:14	ICP2-HE_150920A	92	30566
Boron	13	mg/kg-dry		7		SW6020	09/24/15 19:20 / dck	09/17/15 15:14	ICPMS204-B_150924B	38	30566
Cadmium	11.4	mg/kg-dry		0.5		SW6020	09/24/15 19:20 / dck	09/17/15 15:14	ICPMS204-B_150924B	38	30566
Chromium	53	mg/kg-dry		5		SW6020	09/25/15 17:04 / dck	09/17/15 15:14	ICPMS204-B_150925B	113	30566
Cobalt	17	mg/kg-dry		5		SW6020	09/25/15 17:04 / dck	09/17/15 15:14	ICPMS204-B_150925B	113	30566
Copper	846	mg/kg-dry		5		SW6010B	09/21/15 00:10 / sld	09/17/15 15:14	ICP2-HE_150920A	92	30566
Iron	35700	mg/kg-dry		9		SW6010B	09/21/15 00:10 / sld	09/17/15 15:14	ICP2-HE_150920A	92	30566
Lead	897	mg/kg-dry		5		SW6020	09/24/15 19:20 / dck	09/17/15 15:14	ICPMS204-B_150924B	38	30566
Manganese	9750	mg/kg-dry		5		SW6010B	09/21/15 00:10 / sld	09/17/15 15:14	ICP2-HE_150920A	92	30566
Molybdenum	19	mg/kg-dry		5		SW6020	09/24/15 19:20 / dck	09/17/15 15:14	ICPMS204-B_150924B	38	30566
Nickel	28	mg/kg-dry		5		SW6010B	09/21/15 00:10 / sld	09/17/15 15:14	ICP2-HE_150920A	92	30566
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 19:20 / dck	09/17/15 15:14	ICPMS204-B_150924B	38	30566
Silver	5	mg/kg-dry		5		SW6020	09/24/15 19:20 / dck	09/17/15 15:14	ICPMS204-B_150924B	38	30566
Uranium	6	mg/kg-dry		5		SW6020	09/24/15 19:20 / dck	09/17/15 15:14	ICPMS204-B_150924B	38	30566
Vanadium	97	mg/kg-dry		2		SW6010B	09/21/15 00:10 / sld	09/17/15 15:14	ICP2-HE_150920A	92	30566
Zinc	2350	mg/kg-dry		5		SW6010B	09/21/15 00:10 / sld	09/17/15 15:14	ICP2-HE_150920A	92	30566
METALS, TOTAL											
Mercury	0.91	mg/kg-dry		0.10		SW7471B	09/24/15 14:54 / rgk	09/21/15 08:49	HGCV201-H_150924B	59	30588

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G Sediment Sieve 0.065-1mm
Lab ID: H15090206-020
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 15:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	27.7	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	11	R109505
PHYSICAL CHARACTERISTICS											
Moisture	20.1	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	19	R109875
3050 EXTRACTABLE METALS											
Aluminum	3560	mg/kg-dry		5		SW6010B	09/21/15 01:24 / sld	09/17/15 15:14	ICP2-HE_150920A	112	30567
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 20:36 / dck	09/17/15 15:14	ICPMS204-B_150924B	62	30567
Arsenic	18	mg/kg-dry		5		SW6020	09/24/15 20:36 / dck	09/17/15 15:14	ICPMS204-B_150924B	62	30567
Barium	90	mg/kg-dry		5		SW6010B	09/21/15 01:24 / sld	09/17/15 15:14	ICP2-HE_150920A	112	30567
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 01:24 / sld	09/17/15 15:14	ICP2-HE_150920A	112	30567
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 20:36 / dck	09/17/15 15:14	ICPMS204-B_150924B	62	30567
Cadmium	0.7	mg/kg-dry		0.2		SW6020	09/24/15 20:36 / dck	09/17/15 15:14	ICPMS204-B_150924B	62	30567
Chromium	ND	mg/kg-dry		5		SW6020	09/25/15 17:41 / dck	09/17/15 15:14	ICPMS204-B_150925B	127	30567
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 17:41 / dck	09/17/15 15:14	ICPMS204-B_150925B	127	30567
Copper	104	mg/kg-dry		5		SW6010B	09/21/15 01:24 / sld	09/17/15 15:14	ICP2-HE_150920A	112	30567
Iron	8050	mg/kg-dry		5		SW6010B	09/21/15 01:24 / sld	09/17/15 15:14	ICP2-HE_150920A	112	30567
Lead	47	mg/kg-dry		5		SW6020	09/24/15 20:36 / dck	09/17/15 15:14	ICPMS204-B_150924B	62	30567
Manganese	1370	mg/kg-dry		5		SW6010B	09/21/15 01:24 / sld	09/17/15 15:14	ICP2-HE_150920A	112	30567
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 20:36 / dck	09/17/15 15:14	ICPMS204-B_150924B	62	30567
Nickel	ND	mg/kg-dry		5		SW6010B	09/21/15 01:24 / sld	09/17/15 15:14	ICP2-HE_150920A	112	30567
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 20:36 / dck	09/17/15 15:14	ICPMS204-B_150924B	62	30567
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 20:36 / dck	09/17/15 15:14	ICPMS204-B_150924B	62	30567
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 20:36 / dck	09/17/15 15:14	ICPMS204-B_150924B	62	30567
Vanadium	18	mg/kg-dry		1		SW6010B	09/21/15 01:24 / sld	09/17/15 15:14	ICP2-HE_150920A	112	30567
Zinc	337	mg/kg-dry		5		SW6010B	09/21/15 01:24 / sld	09/17/15 15:14	ICP2-HE_150920A	112	30567
METALS, TOTAL											
Mercury	0.12	mg/kg-dry		0.10		SW7471B	09/24/15 14:56 / rgk	09/21/15 08:49	HGCV201-H_150924B	60	30588

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G Sediment Sieve 1-2mm
Lab ID: H15090206-021
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 15:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	51.6	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	12	R109505
PHYSICAL CHARACTERISTICS											
Moisture	20.5	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	21	R109875
3050 EXTRACTABLE METALS											
Aluminum	3470	mg/kg-dry		5		SW6010B	09/21/15 02:34 / sld	09/17/15 15:16	ICP2-HE_150920A	131	30568
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 21:52 / dck	09/17/15 15:16	ICPMS204-B_150924B	86	30568
Arsenic	27	mg/kg-dry		5		SW6020	09/24/15 21:52 / dck	09/17/15 15:16	ICPMS204-B_150924B	86	30568
Barium	90	mg/kg-dry		5		SW6010B	09/21/15 02:34 / sld	09/17/15 15:16	ICP2-HE_150920A	131	30568
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 02:34 / sld	09/17/15 15:16	ICP2-HE_150920A	131	30568
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 21:52 / dck	09/17/15 15:16	ICPMS204-B_150924B	86	30568
Cadmium	0.6	mg/kg-dry		0.2		SW6020	09/24/15 21:52 / dck	09/17/15 15:16	ICPMS204-B_150924B	86	30568
Chromium	6	mg/kg-dry		5		SW6020	09/25/15 18:18 / dck	09/17/15 15:16	ICPMS204-B_150925B	141	30568
Cobalt	ND	mg/kg-dry		5		SW6020	09/24/15 21:52 / dck	09/17/15 15:16	ICPMS204-B_150924B	86	30568
Copper	95	mg/kg-dry		5		SW6010B	09/21/15 02:34 / sld	09/17/15 15:16	ICP2-HE_150920A	131	30568
Iron	8070	mg/kg-dry		5		SW6010B	09/21/15 02:34 / sld	09/17/15 15:16	ICP2-HE_150920A	131	30568
Lead	41	mg/kg-dry		5		SW6020	09/24/15 21:52 / dck	09/17/15 15:16	ICPMS204-B_150924B	86	30568
Manganese	1150	mg/kg-dry		5		SW6010B	09/21/15 02:34 / sld	09/17/15 15:16	ICP2-HE_150920A	131	30568
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 21:52 / dck	09/17/15 15:16	ICPMS204-B_150924B	86	30568
Nickel	ND	mg/kg-dry		5		SW6010B	09/21/15 02:34 / sld	09/17/15 15:16	ICP2-HE_150920A	131	30568
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 21:52 / dck	09/17/15 15:16	ICPMS204-B_150924B	86	30568
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 21:52 / dck	09/17/15 15:16	ICPMS204-B_150924B	86	30568
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 21:52 / dck	09/17/15 15:16	ICPMS204-B_150924B	86	30568
Vanadium	17	mg/kg-dry		1		SW6010B	09/21/15 02:34 / sld	09/17/15 15:16	ICP2-HE_150920A	131	30568
Zinc	198	mg/kg-dry		5		SW6010B	09/21/15 02:34 / sld	09/17/15 15:16	ICP2-HE_150920A	131	30568
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/24/15 14:59 / rgk	09/21/15 08:49	HGCV201-H_150924B	61	30588

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07 Sediment Sieve <0.065mm
Lab ID: H15090206-022
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 14:15
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	5.5	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	13	R109505
PHYSICAL CHARACTERISTICS											
Moisture	73.7	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	22	R109875
3050 EXTRACTABLE METALS											
Aluminum	17100	mg/kg-dry		10		SW6010B	09/21/15 00:14 / sld	09/17/15 15:14	ICP2-HE_150920A	93	30566
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 19:23 / dck	09/17/15 15:14	ICPMS204-B_150924B	39	30566
Arsenic	88	mg/kg-dry		5		SW6020	09/24/15 19:23 / dck	09/17/15 15:14	ICPMS204-B_150924B	39	30566
Barium	385	mg/kg-dry		5		SW6010B	09/21/15 00:14 / sld	09/17/15 15:14	ICP2-HE_150920A	93	30566
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 00:14 / sld	09/17/15 15:14	ICP2-HE_150920A	93	30566
Boron	15	mg/kg-dry		8		SW6020	09/24/15 19:23 / dck	09/17/15 15:14	ICPMS204-B_150924B	39	30566
Cadmium	10.5	mg/kg-dry		0.6		SW6020	09/24/15 19:23 / dck	09/17/15 15:14	ICPMS204-B_150924B	39	30566
Chromium	62	mg/kg-dry		5		SW6020	09/25/15 17:07 / dck	09/17/15 15:14	ICPMS204-B_150925B	114	30566
Cobalt	14	mg/kg-dry		5		SW6020	09/25/15 17:07 / dck	09/17/15 15:14	ICPMS204-B_150925B	114	30566
Copper	1100	mg/kg-dry		5		SW6010B	09/21/15 00:14 / sld	09/17/15 15:14	ICP2-HE_150920A	93	30566
Iron	40900	mg/kg-dry		10		SW6010B	09/21/15 00:14 / sld	09/17/15 15:14	ICP2-HE_150920A	93	30566
Lead	483	mg/kg-dry		5		SW6020	09/24/15 19:23 / dck	09/17/15 15:14	ICPMS204-B_150924B	39	30566
Manganese	2390	mg/kg-dry		5		SW6010B	09/21/15 00:14 / sld	09/17/15 15:14	ICP2-HE_150920A	93	30566
Molybdenum	16	mg/kg-dry		5		SW6020	09/24/15 19:23 / dck	09/17/15 15:14	ICPMS204-B_150924B	39	30566
Nickel	25	mg/kg-dry		5		SW6010B	09/21/15 00:14 / sld	09/17/15 15:14	ICP2-HE_150920A	93	30566
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 19:23 / dck	09/17/15 15:14	ICPMS204-B_150924B	39	30566
Silver	7	mg/kg-dry		5		SW6020	09/24/15 19:23 / dck	09/17/15 15:14	ICPMS204-B_150924B	39	30566
Uranium	12	mg/kg-dry		5		SW6020	09/24/15 19:23 / dck	09/17/15 15:14	ICPMS204-B_150924B	39	30566
Vanadium	100	mg/kg-dry		3		SW6010B	09/21/15 00:14 / sld	09/17/15 15:14	ICP2-HE_150920A	93	30566
Zinc	3270	mg/kg-dry		5		SW6010B	09/21/15 00:14 / sld	09/17/15 15:14	ICP2-HE_150920A	93	30566
METALS, TOTAL											
Mercury	1.1	mg/kg-dry		0.10		SW7471B	09/24/15 15:01 / rgk	09/21/15 08:49	HGCV201-H_150924B	62	30588

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07 Sediment Sieve 0.065-1mm
Lab ID: H15090206-023
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 14:15
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	34.9	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	14	R109505
PHYSICAL CHARACTERISTICS											
Moisture	24.1	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	23	R109875
3050 EXTRACTABLE METALS											
Aluminum	4700	mg/kg-dry		5		SW6010B	09/21/15 01:28 / sld	09/17/15 15:14	ICP2-HE_150920A	113	30567
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 20:39 / dck	09/17/15 15:14	ICPMS204-B_150924B	63	30567
Arsenic	12	mg/kg-dry		5		SW6020	09/24/15 20:39 / dck	09/17/15 15:14	ICPMS204-B_150924B	63	30567
Barium	67	mg/kg-dry		5		SW6010B	09/21/15 01:28 / sld	09/17/15 15:14	ICP2-HE_150920A	113	30567
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 01:28 / sld	09/17/15 15:14	ICP2-HE_150920A	113	30567
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 20:39 / dck	09/17/15 15:14	ICPMS204-B_150924B	63	30567
Cadmium	1.2	mg/kg-dry		0.2		SW6020	09/24/15 20:39 / dck	09/17/15 15:14	ICPMS204-B_150924B	63	30567
Chromium	9	mg/kg-dry		5		SW6020	09/25/15 17:44 / dck	09/17/15 15:14	ICPMS204-B_150925B	128	30567
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 17:44 / dck	09/17/15 15:14	ICPMS204-B_150925B	128	30567
Copper	163	mg/kg-dry		5		SW6010B	09/21/15 01:28 / sld	09/17/15 15:14	ICP2-HE_150920A	113	30567
Iron	13000	mg/kg-dry		5		SW6010B	09/21/15 01:28 / sld	09/17/15 15:14	ICP2-HE_150920A	113	30567
Lead	58	mg/kg-dry		5		SW6020	09/24/15 20:39 / dck	09/17/15 15:14	ICPMS204-B_150924B	63	30567
Manganese	373	mg/kg-dry		5		SW6010B	09/21/15 01:28 / sld	09/17/15 15:14	ICP2-HE_150920A	113	30567
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 20:39 / dck	09/17/15 15:14	ICPMS204-B_150924B	63	30567
Nickel	ND	mg/kg-dry		5		SW6010B	09/21/15 01:28 / sld	09/17/15 15:14	ICP2-HE_150920A	113	30567
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 20:39 / dck	09/17/15 15:14	ICPMS204-B_150924B	63	30567
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 20:39 / dck	09/17/15 15:14	ICPMS204-B_150924B	63	30567
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 20:39 / dck	09/17/15 15:14	ICPMS204-B_150924B	63	30567
Vanadium	25	mg/kg-dry		1		SW6010B	09/21/15 01:28 / sld	09/17/15 15:14	ICP2-HE_150920A	113	30567
Zinc	550	mg/kg-dry		5		SW6010B	09/21/15 01:28 / sld	09/17/15 15:14	ICP2-HE_150920A	113	30567
METALS, TOTAL											
Mercury	0.16	mg/kg-dry		0.10		SW7471B	09/24/15 15:04 / rgk	09/21/15 08:49	HGCV201-H_150924B	63	30588

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07 Sediment Sieve 1-2mm
Lab ID: H15090206-024
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 14:15
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	31.9	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	15	R109505
PHYSICAL CHARACTERISTICS											
Moisture	12.2	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	24	R109875
3050 EXTRACTABLE METALS											
Aluminum	3550	mg/kg-dry		5		SW6010B	09/21/15 02:38 / sld	09/17/15 15:16	ICP2-HE_150920A	132	30568
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 21:55 / dck	09/17/15 15:16	ICPMS204-B_150924B	87	30568
Arsenic	20	mg/kg-dry		5		SW6020	09/24/15 21:55 / dck	09/17/15 15:16	ICPMS204-B_150924B	87	30568
Barium	56	mg/kg-dry		5		SW6010B	09/21/15 02:38 / sld	09/17/15 15:16	ICP2-HE_150920A	132	30568
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 02:38 / sld	09/17/15 15:16	ICP2-HE_150920A	132	30568
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 21:55 / dck	09/17/15 15:16	ICPMS204-B_150924B	87	30568
Cadmium	0.5	mg/kg-dry		0.2		SW6020	09/24/15 21:55 / dck	09/17/15 15:16	ICPMS204-B_150924B	87	30568
Chromium	17	mg/kg-dry		5		SW6020	09/25/15 18:21 / dck	09/17/15 15:16	ICPMS204-B_150925B	142	30568
Cobalt	ND	mg/kg-dry		5		SW6020	09/24/15 21:55 / dck	09/17/15 15:16	ICPMS204-B_150924B	87	30568
Copper	83	mg/kg-dry		5		SW6010B	09/21/15 02:38 / sld	09/17/15 15:16	ICP2-HE_150920A	132	30568
Iron	7350	mg/kg-dry		5		SW6010B	09/21/15 02:38 / sld	09/17/15 15:16	ICP2-HE_150920A	132	30568
Lead	86	mg/kg-dry		5		SW6020	09/24/15 21:55 / dck	09/17/15 15:16	ICPMS204-B_150924B	87	30568
Manganese	471	mg/kg-dry		5		SW6010B	09/21/15 02:38 / sld	09/17/15 15:16	ICP2-HE_150920A	132	30568
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 21:55 / dck	09/17/15 15:16	ICPMS204-B_150924B	87	30568
Nickel	ND	mg/kg-dry		5		SW6010B	09/21/15 02:38 / sld	09/17/15 15:16	ICP2-HE_150920A	132	30568
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 21:55 / dck	09/17/15 15:16	ICPMS204-B_150924B	87	30568
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 21:55 / dck	09/17/15 15:16	ICPMS204-B_150924B	87	30568
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 21:55 / dck	09/17/15 15:16	ICPMS204-B_150924B	87	30568
Vanadium	16	mg/kg-dry		1		SW6010B	09/21/15 02:38 / sld	09/17/15 15:16	ICP2-HE_150920A	132	30568
Zinc	348	mg/kg-dry		5		SW6010B	09/21/15 02:38 / sld	09/17/15 15:16	ICP2-HE_150920A	132	30568
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/24/15 15:07 / rgk	09/21/15 08:49	HGCV201-H_150924B	64	30588

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08 Sediment Sieve <0.065mm
Lab ID: H15090206-025
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 13:45
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	4.3	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	16	R109505
PHYSICAL CHARACTERISTICS											
Moisture	73.8	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	25	R109875
3050 EXTRACTABLE METALS											
Aluminum	18500	mg/kg-dry		10		SW6010B	09/21/15 00:17 / sld	09/17/15 15:14	ICP2-HE_150920A	94	30566
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 19:26 / dck	09/17/15 15:14	ICPMS204-B_150924B	40	30566
Arsenic	56	mg/kg-dry		5		SW6020	09/24/15 19:26 / dck	09/17/15 15:14	ICPMS204-B_150924B	40	30566
Barium	326	mg/kg-dry		5		SW6010B	09/21/15 00:17 / sld	09/17/15 15:14	ICP2-HE_150920A	94	30566
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 00:17 / sld	09/17/15 15:14	ICP2-HE_150920A	94	30566
Boron	14	mg/kg-dry		8		SW6020	09/24/15 19:26 / dck	09/17/15 15:14	ICPMS204-B_150924B	40	30566
Cadmium	9.9	mg/kg-dry		0.6		SW6020	09/24/15 19:26 / dck	09/17/15 15:14	ICPMS204-B_150924B	40	30566
Chromium	46	mg/kg-dry		5		SW6020	09/25/15 17:09 / dck	09/17/15 15:14	ICPMS204-B_150925B	115	30566
Cobalt	10	mg/kg-dry		5		SW6020	09/25/15 17:09 / dck	09/17/15 15:14	ICPMS204-B_150925B	115	30566
Copper	766	mg/kg-dry		5		SW6010B	09/21/15 00:17 / sld	09/17/15 15:14	ICP2-HE_150920A	94	30566
Iron	34900	mg/kg-dry		10		SW6010B	09/21/15 00:17 / sld	09/17/15 15:14	ICP2-HE_150920A	94	30566
Lead	398	mg/kg-dry		5		SW6020	09/24/15 19:26 / dck	09/17/15 15:14	ICPMS204-B_150924B	40	30566
Manganese	1840	mg/kg-dry		5		SW6010B	09/21/15 00:17 / sld	09/17/15 15:14	ICP2-HE_150920A	94	30566
Molybdenum	14	mg/kg-dry		5		SW6020	09/24/15 19:26 / dck	09/17/15 15:14	ICPMS204-B_150924B	40	30566
Nickel	26	mg/kg-dry		5		SW6010B	09/21/15 00:17 / sld	09/17/15 15:14	ICP2-HE_150920A	94	30566
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 19:26 / dck	09/17/15 15:14	ICPMS204-B_150924B	40	30566
Silver	5	mg/kg-dry		5		SW6020	09/24/15 19:26 / dck	09/17/15 15:14	ICPMS204-B_150924B	40	30566
Uranium	12	mg/kg-dry		5		SW6020	09/24/15 19:26 / dck	09/17/15 15:14	ICPMS204-B_150924B	40	30566
Vanadium	61	mg/kg-dry		3		SW6010B	09/21/15 00:17 / sld	09/17/15 15:14	ICP2-HE_150920A	94	30566
Zinc	1740	mg/kg-dry		5		SW6010B	09/21/15 00:17 / sld	09/17/15 15:14	ICP2-HE_150920A	94	30566
METALS, TOTAL											
Mercury	1.7	mg/kg-dry		0.10		SW7471B	10/05/15 14:01 / rgk	09/21/15 08:49	HGCV201-H_151005A	11	30588

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08 Sediment Sieve 0.065-1mm
Lab ID: H15090206-026
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 13:45
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	22.3	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	17	R109505
PHYSICAL CHARACTERISTICS											
Moisture	26.1	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	26	R109875
3050 EXTRACTABLE METALS											
Aluminum	5840	mg/kg-dry		5		SW6010B	09/21/15 01:31 / sld	09/17/15 15:14	ICP2-HE_150920A	114	30567
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 20:42 / dck	09/17/15 15:14	ICPMS204-B_150924B	64	30567
Arsenic	12	mg/kg-dry		5		SW6020	09/24/15 20:42 / dck	09/17/15 15:14	ICPMS204-B_150924B	64	30567
Barium	81	mg/kg-dry		5		SW6010B	09/21/15 01:31 / sld	09/17/15 15:14	ICP2-HE_150920A	114	30567
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 01:31 / sld	09/17/15 15:14	ICP2-HE_150920A	114	30567
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 20:42 / dck	09/17/15 15:14	ICPMS204-B_150924B	64	30567
Cadmium	2.6	mg/kg-dry		0.2		SW6020	09/24/15 20:42 / dck	09/17/15 15:14	ICPMS204-B_150924B	64	30567
Chromium	7	mg/kg-dry		5		SW6020	09/25/15 17:47 / dck	09/17/15 15:14	ICPMS204-B_150925B	129	30567
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 17:47 / dck	09/17/15 15:14	ICPMS204-B_150925B	129	30567
Copper	153	mg/kg-dry		5		SW6010B	09/21/15 01:31 / sld	09/17/15 15:14	ICP2-HE_150920A	114	30567
Iron	10600	mg/kg-dry		5		SW6010B	09/21/15 01:31 / sld	09/17/15 15:14	ICP2-HE_150920A	114	30567
Lead	45	mg/kg-dry		5		SW6020	09/24/15 20:42 / dck	09/17/15 15:14	ICPMS204-B_150924B	64	30567
Manganese	233	mg/kg-dry		5		SW6010B	09/21/15 01:31 / sld	09/17/15 15:14	ICP2-HE_150920A	114	30567
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 20:42 / dck	09/17/15 15:14	ICPMS204-B_150924B	64	30567
Nickel	ND	mg/kg-dry		5		SW6010B	09/21/15 01:31 / sld	09/17/15 15:14	ICP2-HE_150920A	114	30567
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 20:42 / dck	09/17/15 15:14	ICPMS204-B_150924B	64	30567
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 20:42 / dck	09/17/15 15:14	ICPMS204-B_150924B	64	30567
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 20:42 / dck	09/17/15 15:14	ICPMS204-B_150924B	64	30567
Vanadium	23	mg/kg-dry		1		SW6010B	09/21/15 01:31 / sld	09/17/15 15:14	ICP2-HE_150920A	114	30567
Zinc	374	mg/kg-dry		5		SW6010B	09/21/15 01:31 / sld	09/17/15 15:14	ICP2-HE_150920A	114	30567
METALS, TOTAL											
Mercury	0.54	mg/kg-dry		0.10		SW7471B	09/30/15 15:22 / rgk	09/24/15 15:56	HGCV201-H_150930A	72	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08 Sediment Sieve 1-2mm
Lab ID: H15090206-027
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 13:45
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	37.6	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	18	R109505
PHYSICAL CHARACTERISTICS											
Moisture	18.2	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	27	R109875
3050 EXTRACTABLE METALS											
Aluminum	4520	mg/kg-dry		5		SW6010B	09/21/15 02:42 / sld	09/17/15 15:16	ICP2-HE_150920A	133	30568
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 21:58 / dck	09/17/15 15:16	ICPMS204-B_150924B	88	30568
Arsenic	7	mg/kg-dry		5		SW6020	09/24/15 21:58 / dck	09/17/15 15:16	ICPMS204-B_150924B	88	30568
Barium	248	mg/kg-dry		5		SW6010B	09/21/15 02:42 / sld	09/17/15 15:16	ICP2-HE_150920A	133	30568
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 02:42 / sld	09/17/15 15:16	ICP2-HE_150920A	133	30568
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 21:58 / dck	09/17/15 15:16	ICPMS204-B_150924B	88	30568
Cadmium	1.3	mg/kg-dry		0.2		SW6020	09/24/15 21:58 / dck	09/17/15 15:16	ICPMS204-B_150924B	88	30568
Chromium	5	mg/kg-dry		5		SW6020	09/25/15 18:24 / dck	09/17/15 15:16	ICPMS204-B_150925B	143	30568
Cobalt	ND	mg/kg-dry		5		SW6020	09/24/15 21:58 / dck	09/17/15 15:16	ICPMS204-B_150924B	88	30568
Copper	81	mg/kg-dry		5		SW6010B	09/21/15 02:42 / sld	09/17/15 15:16	ICP2-HE_150920A	133	30568
Iron	6390	mg/kg-dry		5		SW6010B	09/21/15 02:42 / sld	09/17/15 15:16	ICP2-HE_150920A	133	30568
Lead	31	mg/kg-dry		5		SW6020	09/24/15 21:58 / dck	09/17/15 15:16	ICPMS204-B_150924B	88	30568
Manganese	2270	mg/kg-dry		5		SW6010B	09/21/15 02:42 / sld	09/17/15 15:16	ICP2-HE_150920A	133	30568
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 21:58 / dck	09/17/15 15:16	ICPMS204-B_150924B	88	30568
Nickel	ND	mg/kg-dry		5		SW6010B	09/21/15 02:42 / sld	09/17/15 15:16	ICP2-HE_150920A	133	30568
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 21:58 / dck	09/17/15 15:16	ICPMS204-B_150924B	88	30568
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 21:58 / dck	09/17/15 15:16	ICPMS204-B_150924B	88	30568
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 21:58 / dck	09/17/15 15:16	ICPMS204-B_150924B	88	30568
Vanadium	21	mg/kg-dry		1		SW6010B	09/21/15 02:42 / sld	09/17/15 15:16	ICP2-HE_150920A	133	30568
Zinc	187	mg/kg-dry		5		SW6010B	09/21/15 02:42 / sld	09/17/15 15:16	ICP2-HE_150920A	133	30568
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/28/15 17:22 / rgk	09/24/15 15:56	HGCV201-H_150928A	19	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A Sediment Sieve <0.065mm
Lab ID: H15090206-028
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 12:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	22.4	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	19	R109505
PHYSICAL CHARACTERISTICS											
Moisture	74.4	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	28	R109875
3050 EXTRACTABLE METALS											
Aluminum	36500	mg/kg-dry		10		SW6010B	09/21/15 00:21 / sld	09/17/15 15:14	ICP2-HE_150920A	95	30566
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 19:29 / dck	09/17/15 15:14	ICPMS204-B_150924B	41	30566
Arsenic	36	mg/kg-dry		5		SW6020	09/24/15 19:29 / dck	09/17/15 15:14	ICPMS204-B_150924B	41	30566
Barium	298	mg/kg-dry		5		SW6010B	09/21/15 00:21 / sld	09/17/15 15:14	ICP2-HE_150920A	95	30566
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 00:21 / sld	09/17/15 15:14	ICP2-HE_150920A	95	30566
Boron	12	mg/kg-dry		8		SW6020	09/24/15 19:29 / dck	09/17/15 15:14	ICPMS204-B_150924B	41	30566
Cadmium	5.9	mg/kg-dry		0.6		SW6020	09/24/15 19:29 / dck	09/17/15 15:14	ICPMS204-B_150924B	41	30566
Chromium	24	mg/kg-dry		5		SW6020	09/25/15 17:12 / dck	09/17/15 15:14	ICPMS204-B_150925B	116	30566
Cobalt	12	mg/kg-dry		5		SW6020	09/25/15 17:12 / dck	09/17/15 15:14	ICPMS204-B_150925B	116	30566
Copper	507	mg/kg-dry		5		SW6010B	09/21/15 00:21 / sld	09/17/15 15:14	ICP2-HE_150920A	95	30566
Iron	37900	mg/kg-dry		10		SW6010B	09/21/15 00:21 / sld	09/17/15 15:14	ICP2-HE_150920A	95	30566
Lead	175	mg/kg-dry		5		SW6020	09/24/15 19:29 / dck	09/17/15 15:14	ICPMS204-B_150924B	41	30566
Manganese	1250	mg/kg-dry		5		SW6010B	09/21/15 00:21 / sld	09/17/15 15:14	ICP2-HE_150920A	95	30566
Molybdenum	6	mg/kg-dry		5		SW6020	09/24/15 19:29 / dck	09/17/15 15:14	ICPMS204-B_150924B	41	30566
Nickel	12	mg/kg-dry		5		SW6010B	09/21/15 00:21 / sld	09/17/15 15:14	ICP2-HE_150920A	95	30566
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 19:29 / dck	09/17/15 15:14	ICPMS204-B_150924B	41	30566
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 19:29 / dck	09/17/15 15:14	ICPMS204-B_150924B	41	30566
Uranium	7	mg/kg-dry		5		SW6020	09/24/15 19:29 / dck	09/17/15 15:14	ICPMS204-B_150924B	41	30566
Vanadium	61	mg/kg-dry		3		SW6010B	09/21/15 00:21 / sld	09/17/15 15:14	ICP2-HE_150920A	95	30566
Zinc	1580	mg/kg-dry		5		SW6010B	09/21/15 00:21 / sld	09/17/15 15:14	ICP2-HE_150920A	95	30566
METALS, TOTAL											
Mercury	0.64	mg/kg-dry		0.10		SW7471B	09/28/15 17:25 / rgk	09/24/15 15:56	HGCV201-H_150928A	20	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A Sediment Sieve 0.065-1mm
Lab ID: H15090206-029
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 12:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	40.1	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	20	R109505
PHYSICAL CHARACTERISTICS											
Moisture	28.1	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	29	R109875
3050 EXTRACTABLE METALS											
Aluminum	9840	mg/kg-dry		5		SW6010B	09/21/15 01:35 / sld	09/17/15 15:14	ICP2-HE_150920A	115	30567
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 20:45 / dck	09/17/15 15:14	ICPMS204-B_150924B	65	30567
Arsenic	8	mg/kg-dry		5		SW6020	09/24/15 20:45 / dck	09/17/15 15:14	ICPMS204-B_150924B	65	30567
Barium	115	mg/kg-dry		5		SW6010B	09/21/15 01:35 / sld	09/17/15 15:14	ICP2-HE_150920A	115	30567
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 01:35 / sld	09/17/15 15:14	ICP2-HE_150920A	115	30567
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 20:45 / dck	09/17/15 15:14	ICPMS204-B_150924B	65	30567
Cadmium	2.0	mg/kg-dry		0.2		SW6020	09/24/15 20:45 / dck	09/17/15 15:14	ICPMS204-B_150924B	65	30567
Chromium	14	mg/kg-dry		5		SW6020	09/25/15 17:49 / dck	09/17/15 15:14	ICPMS204-B_150925B	130	30567
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 17:49 / dck	09/17/15 15:14	ICPMS204-B_150925B	130	30567
Copper	114	mg/kg-dry		5		SW6010B	09/21/15 01:35 / sld	09/17/15 15:14	ICP2-HE_150920A	115	30567
Iron	23200	mg/kg-dry		5		SW6010B	09/21/15 01:35 / sld	09/17/15 15:14	ICP2-HE_150920A	115	30567
Lead	32	mg/kg-dry		5		SW6020	09/24/15 20:45 / dck	09/17/15 15:14	ICPMS204-B_150924B	65	30567
Manganese	369	mg/kg-dry		5		SW6010B	09/21/15 01:35 / sld	09/17/15 15:14	ICP2-HE_150920A	115	30567
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 20:45 / dck	09/17/15 15:14	ICPMS204-B_150924B	65	30567
Nickel	ND	mg/kg-dry		5		SW6010B	09/21/15 01:35 / sld	09/17/15 15:14	ICP2-HE_150920A	115	30567
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 20:45 / dck	09/17/15 15:14	ICPMS204-B_150924B	65	30567
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 20:45 / dck	09/17/15 15:14	ICPMS204-B_150924B	65	30567
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 20:45 / dck	09/17/15 15:14	ICPMS204-B_150924B	65	30567
Vanadium	61	mg/kg-dry		1		SW6010B	09/21/15 01:35 / sld	09/17/15 15:14	ICP2-HE_150920A	115	30567
Zinc	298	mg/kg-dry		5		SW6010B	09/21/15 01:35 / sld	09/17/15 15:14	ICP2-HE_150920A	115	30567
METALS, TOTAL											
Mercury	0.16	mg/kg-dry		0.10		SW7471B	09/28/15 17:27 / rgk	09/24/15 15:56	HGCV201-H_150928A	21	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A Sediment Sieve 1-2mm
Lab ID: H15090206-030
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 12:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	8.4	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	21	R109505
PHYSICAL CHARACTERISTICS											
Moisture	26.5	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	31	R109875
3050 EXTRACTABLE METALS											
Aluminum	12600	mg/kg-dry		5		SW6010B	09/21/15 15:58 / sld	09/17/15 15:16	ICP2-HE_150921B	41	30568
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 22:02 / dck	09/17/15 15:16	ICPMS204-B_150924B	89	30568
Arsenic	6	mg/kg-dry		5		SW6020	09/24/15 22:02 / dck	09/17/15 15:16	ICPMS204-B_150924B	89	30568
Barium	68	mg/kg-dry		5		SW6010B	09/21/15 15:58 / sld	09/17/15 15:16	ICP2-HE_150921B	41	30568
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 15:58 / sld	09/17/15 15:16	ICP2-HE_150921B	41	30568
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 22:02 / dck	09/17/15 15:16	ICPMS204-B_150924B	89	30568
Cadmium	0.6	mg/kg-dry		0.2		SW6020	09/24/15 22:02 / dck	09/17/15 15:16	ICPMS204-B_150924B	89	30568
Chromium	ND	mg/kg-dry		5		SW6020	09/25/15 18:27 / dck	09/17/15 15:16	ICPMS204-B_150925B	144	30568
Cobalt	ND	mg/kg-dry		5		SW6020	09/24/15 22:02 / dck	09/17/15 15:16	ICPMS204-B_150924B	89	30568
Copper	52	mg/kg-dry		5		SW6010B	09/21/15 15:58 / sld	09/17/15 15:16	ICP2-HE_150921B	41	30568
Iron	10600	mg/kg-dry		5		SW6010B	09/21/15 15:58 / sld	09/17/15 15:16	ICP2-HE_150921B	41	30568
Lead	10	mg/kg-dry		5		SW6020	09/24/15 22:02 / dck	09/17/15 15:16	ICPMS204-B_150924B	89	30568
Manganese	325	mg/kg-dry		5		SW6010B	09/21/15 15:58 / sld	09/17/15 15:16	ICP2-HE_150921B	41	30568
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 22:02 / dck	09/17/15 15:16	ICPMS204-B_150924B	89	30568
Nickel	ND	mg/kg-dry		5		SW6010B	09/21/15 15:58 / sld	09/17/15 15:16	ICP2-HE_150921B	41	30568
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 22:02 / dck	09/17/15 15:16	ICPMS204-B_150924B	89	30568
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 22:02 / dck	09/17/15 15:16	ICPMS204-B_150924B	89	30568
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 22:02 / dck	09/17/15 15:16	ICPMS204-B_150924B	89	30568
Vanadium	13	mg/kg-dry		1		SW6010B	09/21/15 15:58 / sld	09/17/15 15:16	ICP2-HE_150921B	41	30568
Zinc	121	mg/kg-dry		5		SW6010B	09/21/15 15:58 / sld	09/17/15 15:16	ICP2-HE_150921B	41	30568
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/28/15 17:30 / rgk	09/24/15 15:56	HGCV201-H_150928A	22	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: Sediment duplicate #2 Sediment Sieve <0.065mm
Collection Date: 09/09/15 12:30
DateReceived: 09/10/15
Lab ID: H15090206-031
Report Date: 10/06/15
Revised Date: 10/23/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	29.3	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	22	R109505
PHYSICAL CHARACTERISTICS											
Moisture	67.5	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	32	R109875
3050 EXTRACTABLE METALS											
Aluminum	38300	mg/kg-dry		10		SW6010B	09/21/15 00:25 / sld	09/17/15 15:14	ICP2-HE_150920A	96	30566
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 19:32 / dck	09/17/15 15:14	ICPMS204-B_150924B	42	30566
Arsenic	25	mg/kg-dry		5		SW6020	09/24/15 19:32 / dck	09/17/15 15:14	ICPMS204-B_150924B	42	30566
Barium	247	mg/kg-dry		5		SW6010B	09/21/15 00:25 / sld	09/17/15 15:14	ICP2-HE_150920A	96	30566
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 00:25 / sld	09/17/15 15:14	ICP2-HE_150920A	96	30566
Boron	11	mg/kg-dry		7		SW6020	09/24/15 19:32 / dck	09/17/15 15:14	ICPMS204-B_150924B	42	30566
Cadmium	3.3	mg/kg-dry		0.5		SW6020	09/24/15 19:32 / dck	09/17/15 15:14	ICPMS204-B_150924B	42	30566
Chromium	22	mg/kg-dry		5		SW6020	09/25/15 17:15 / dck	09/17/15 15:14	ICPMS204-B_150925B	117	30566
Cobalt	12	mg/kg-dry		5		SW6020	09/25/15 17:15 / dck	09/17/15 15:14	ICPMS204-B_150925B	117	30566
Copper	252	mg/kg-dry		5		SW6010B	09/21/15 00:25 / sld	09/17/15 15:14	ICP2-HE_150920A	96	30566
Iron	36600	mg/kg-dry		9		SW6010B	09/21/15 00:25 / sld	09/17/15 15:14	ICP2-HE_150920A	96	30566
Lead	118	mg/kg-dry		5		SW6020	09/24/15 19:32 / dck	09/17/15 15:14	ICPMS204-B_150924B	42	30566
Manganese	1010	mg/kg-dry		5		SW6010B	09/21/15 00:25 / sld	09/17/15 15:14	ICP2-HE_150920A	96	30566
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 19:32 / dck	09/17/15 15:14	ICPMS204-B_150924B	42	30566
Nickel	10	mg/kg-dry		5		SW6010B	09/21/15 00:25 / sld	09/17/15 15:14	ICP2-HE_150920A	96	30566
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 19:32 / dck	09/17/15 15:14	ICPMS204-B_150924B	42	30566
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 19:32 / dck	09/17/15 15:14	ICPMS204-B_150924B	42	30566
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 19:32 / dck	09/17/15 15:14	ICPMS204-B_150924B	42	30566
Vanadium	59	mg/kg-dry		2		SW6010B	09/21/15 00:25 / sld	09/17/15 15:14	ICP2-HE_150920A	96	30566
Zinc	1290	mg/kg-dry		5		SW6010B	09/21/15 00:25 / sld	09/17/15 15:14	ICP2-HE_150920A	96	30566
METALS, TOTAL											
Mercury	0.34	mg/kg-dry		0.10		SW7471B	09/28/15 17:32 / rgk	09/24/15 15:56	HGCV201-H_150928A	23	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: Sediment duplicate #2 Sediment Sieve 0.065-1mm
Collection Date: 09/09/15 12:30
DateReceived: 09/10/15
Lab ID: H15090206-032
Report Date: 10/06/15
Revised Date: 10/23/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	32.6	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	23	R109505
PHYSICAL CHARACTERISTICS											
Moisture	23.0	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	33	R109875
3050 EXTRACTABLE METALS											
Aluminum	8620	mg/kg-dry		5		SW6010B	09/21/15 01:39 / sld	09/17/15 15:14	ICP2-HE_150920A	116	30567
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 20:48 / dck	09/17/15 15:14	ICPMS204-B_150924B	66	30567
Arsenic	ND	mg/kg-dry		5		SW6020	09/24/15 20:48 / dck	09/17/15 15:14	ICPMS204-B_150924B	66	30567
Barium	96	mg/kg-dry		5		SW6010B	09/21/15 01:39 / sld	09/17/15 15:14	ICP2-HE_150920A	116	30567
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 01:39 / sld	09/17/15 15:14	ICP2-HE_150920A	116	30567
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 20:48 / dck	09/17/15 15:14	ICPMS204-B_150924B	66	30567
Cadmium	1.2	mg/kg-dry		0.2		SW6020	09/24/15 20:48 / dck	09/17/15 15:14	ICPMS204-B_150924B	66	30567
Chromium	13	mg/kg-dry		5		SW6020	09/25/15 17:52 / dck	09/17/15 15:14	ICPMS204-B_150925B	131	30567
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 17:52 / dck	09/17/15 15:14	ICPMS204-B_150925B	131	30567
Copper	79	mg/kg-dry		5		SW6010B	09/21/15 01:39 / sld	09/17/15 15:14	ICP2-HE_150920A	116	30567
Iron	21600	mg/kg-dry		5		SW6010B	09/21/15 01:39 / sld	09/17/15 15:14	ICP2-HE_150920A	116	30567
Lead	15	mg/kg-dry		5		SW6020	09/24/15 20:48 / dck	09/17/15 15:14	ICPMS204-B_150924B	66	30567
Manganese	267	mg/kg-dry		5		SW6010B	09/21/15 01:39 / sld	09/17/15 15:14	ICP2-HE_150920A	116	30567
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 20:48 / dck	09/17/15 15:14	ICPMS204-B_150924B	66	30567
Nickel	ND	mg/kg-dry		5		SW6010B	09/21/15 01:39 / sld	09/17/15 15:14	ICP2-HE_150920A	116	30567
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 20:48 / dck	09/17/15 15:14	ICPMS204-B_150924B	66	30567
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 20:48 / dck	09/17/15 15:14	ICPMS204-B_150924B	66	30567
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 20:48 / dck	09/17/15 15:14	ICPMS204-B_150924B	66	30567
Vanadium	59	mg/kg-dry		1		SW6010B	09/21/15 01:39 / sld	09/17/15 15:14	ICP2-HE_150920A	116	30567
Zinc	196	mg/kg-dry		5		SW6010B	09/21/15 01:39 / sld	09/17/15 15:14	ICP2-HE_150920A	116	30567
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/28/15 17:35 / rgk	09/24/15 15:56	HGCV201-H_150928A	24	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: Sediment duplicate #2 Sediment Sieve 1-2mm
Collection Date: 09/09/15 12:30
DateReceived: 09/10/15
Lab ID: H15090206-033
Report Date: 10/06/15
Revised Date: 10/23/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	12.0	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	24	R109505
PHYSICAL CHARACTERISTICS											
Moisture	26.3	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	34	R109875
3050 EXTRACTABLE METALS											
Aluminum	13300	mg/kg-dry		5		SW6010B	09/21/15 16:02 / sld	09/17/15 15:16	ICP2-HE_150921B	42	30568
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 22:05 / dck	09/17/15 15:16	ICPMS204-B_150924B	90	30568
Arsenic	ND	mg/kg-dry		5		SW6020	09/24/15 22:05 / dck	09/17/15 15:16	ICPMS204-B_150924B	90	30568
Barium	55	mg/kg-dry		5		SW6010B	09/21/15 16:02 / sld	09/17/15 15:16	ICP2-HE_150921B	42	30568
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 16:02 / sld	09/17/15 15:16	ICP2-HE_150921B	42	30568
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 22:05 / dck	09/17/15 15:16	ICPMS204-B_150924B	90	30568
Cadmium	0.3	mg/kg-dry		0.2		SW6020	09/24/15 22:05 / dck	09/17/15 15:16	ICPMS204-B_150924B	90	30568
Chromium	ND	mg/kg-dry		5		SW6020	09/25/15 18:29 / dck	09/17/15 15:16	ICPMS204-B_150925B	145	30568
Cobalt	ND	mg/kg-dry		5		SW6020	09/24/15 22:05 / dck	09/17/15 15:16	ICPMS204-B_150924B	90	30568
Copper	37	mg/kg-dry		5		SW6010B	09/21/15 16:02 / sld	09/17/15 15:16	ICP2-HE_150921B	42	30568
Iron	10900	mg/kg-dry		5		SW6010B	09/21/15 16:02 / sld	09/17/15 15:16	ICP2-HE_150921B	42	30568
Lead	8	mg/kg-dry		5		SW6020	09/24/15 22:05 / dck	09/17/15 15:16	ICPMS204-B_150924B	90	30568
Manganese	299	mg/kg-dry		5		SW6010B	09/21/15 16:02 / sld	09/17/15 15:16	ICP2-HE_150921B	42	30568
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 22:05 / dck	09/17/15 15:16	ICPMS204-B_150924B	90	30568
Nickel	ND	mg/kg-dry		5		SW6010B	09/21/15 16:02 / sld	09/17/15 15:16	ICP2-HE_150921B	42	30568
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 22:05 / dck	09/17/15 15:16	ICPMS204-B_150924B	90	30568
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 22:05 / dck	09/17/15 15:16	ICPMS204-B_150924B	90	30568
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 22:05 / dck	09/17/15 15:16	ICPMS204-B_150924B	90	30568
Vanadium	14	mg/kg-dry		1		SW6010B	09/21/15 16:02 / sld	09/17/15 15:16	ICP2-HE_150921B	42	30568
Zinc	94	mg/kg-dry		5		SW6010B	09/21/15 16:02 / sld	09/17/15 15:16	ICP2-HE_150921B	42	30568
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/28/15 17:37 / rgk	09/24/15 15:56	HGCV201-H_150928A	25	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B Sediment Sieve <0.065mm
Lab ID: H15090206-034
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 11:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	6.6	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	25	R109505
PHYSICAL CHARACTERISTICS											
Moisture	68.3	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	35	R109875
3050 EXTRACTABLE METALS											
Aluminum	29100	mg/kg-dry		10		SW6010B	09/21/15 00:28 / sld	09/17/15 15:14	ICP2-HE_150920A	97	30566
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 19:35 / dck	09/17/15 15:14	ICPMS204-B_150924B	43	30566
Arsenic	32	mg/kg-dry		5		SW6020	09/24/15 19:35 / dck	09/17/15 15:14	ICPMS204-B_150924B	43	30566
Barium	415	mg/kg-dry		5		SW6010B	09/21/15 00:28 / sld	09/17/15 15:14	ICP2-HE_150920A	97	30566
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 00:28 / sld	09/17/15 15:14	ICP2-HE_150920A	97	30566
Boron	11	mg/kg-dry		7		SW6020	09/24/15 19:35 / dck	09/17/15 15:14	ICPMS204-B_150924B	43	30566
Cadmium	7.3	mg/kg-dry		0.5		SW6020	09/24/15 19:35 / dck	09/17/15 15:14	ICPMS204-B_150924B	43	30566
Chromium	23	mg/kg-dry		5		SW6020	09/25/15 17:17 / dck	09/17/15 15:14	ICPMS204-B_150925B	118	30566
Cobalt	12	mg/kg-dry		5		SW6020	09/25/15 17:17 / dck	09/17/15 15:14	ICPMS204-B_150925B	118	30566
Copper	558	mg/kg-dry		5		SW6010B	09/21/15 00:28 / sld	09/17/15 15:14	ICP2-HE_150920A	97	30566
Iron	30200	mg/kg-dry		9		SW6010B	09/21/15 00:28 / sld	09/17/15 15:14	ICP2-HE_150920A	97	30566
Lead	186	mg/kg-dry		5		SW6020	09/24/15 19:35 / dck	09/17/15 15:14	ICPMS204-B_150924B	43	30566
Manganese	2170	mg/kg-dry		5		SW6010B	09/21/15 00:28 / sld	09/17/15 15:14	ICP2-HE_150920A	97	30566
Molybdenum	6	mg/kg-dry		5		SW6020	09/24/15 19:35 / dck	09/17/15 15:14	ICPMS204-B_150924B	43	30566
Nickel	12	mg/kg-dry		5		SW6010B	09/21/15 00:28 / sld	09/17/15 15:14	ICP2-HE_150920A	97	30566
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 19:35 / dck	09/17/15 15:14	ICPMS204-B_150924B	43	30566
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 19:35 / dck	09/17/15 15:14	ICPMS204-B_150924B	43	30566
Uranium	6	mg/kg-dry		5		SW6020	09/24/15 19:35 / dck	09/17/15 15:14	ICPMS204-B_150924B	43	30566
Vanadium	49	mg/kg-dry		2		SW6010B	09/21/15 00:28 / sld	09/17/15 15:14	ICP2-HE_150920A	97	30566
Zinc	1570	mg/kg-dry		5		SW6010B	09/21/15 00:28 / sld	09/17/15 15:14	ICP2-HE_150920A	97	30566
METALS, TOTAL											
Mercury	1.5	mg/kg-dry		0.10		SW7471B	09/30/15 15:24 / rgk	09/24/15 15:56	HGCV201-H_150930A	73	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-10B Sediment Sieve 0.065-1mm
Collection Date: 09/09/15 11:30
DateReceived: 09/10/15
Lab ID: H15090206-035
Report Date: 10/06/15
Revised Date: 10/23/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	27.4	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	26	R109505
PHYSICAL CHARACTERISTICS											
Moisture	31.4	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	36	R109875
3050 EXTRACTABLE METALS											
Aluminum	7370	mg/kg-dry		5		SW6010B	09/21/15 01:42 / sld	09/17/15 15:14	ICP2-HE_150920A	117	30567
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 20:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	67	30567
Arsenic	36	mg/kg-dry		5		SW6020	09/24/15 20:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	67	30567
Barium	102	mg/kg-dry		5		SW6010B	09/21/15 01:42 / sld	09/17/15 15:14	ICP2-HE_150920A	117	30567
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 01:42 / sld	09/17/15 15:14	ICP2-HE_150920A	117	30567
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 20:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	67	30567
Cadmium	1.8	mg/kg-dry		0.2		SW6020	09/24/15 20:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	67	30567
Chromium	10	mg/kg-dry		5		SW6020	09/25/15 17:54 / dck	09/17/15 15:14	ICPMS204-B_150925B	132	30567
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 17:54 / dck	09/17/15 15:14	ICPMS204-B_150925B	132	30567
Copper	89	mg/kg-dry		5		SW6010B	09/21/15 01:42 / sld	09/17/15 15:14	ICP2-HE_150920A	117	30567
Iron	17100	mg/kg-dry		5		SW6010B	09/21/15 01:42 / sld	09/17/15 15:14	ICP2-HE_150920A	117	30567
Lead	29	mg/kg-dry		5		SW6020	09/24/15 20:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	67	30567
Manganese	392	mg/kg-dry		5		SW6010B	09/21/15 01:42 / sld	09/17/15 15:14	ICP2-HE_150920A	117	30567
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 20:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	67	30567
Nickel	ND	mg/kg-dry		5		SW6010B	09/21/15 01:42 / sld	09/17/15 15:14	ICP2-HE_150920A	117	30567
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 20:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	67	30567
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 20:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	67	30567
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 20:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	67	30567
Vanadium	43	mg/kg-dry		1		SW6010B	09/21/15 01:42 / sld	09/17/15 15:14	ICP2-HE_150920A	117	30567
Zinc	235	mg/kg-dry		5		SW6010B	09/21/15 01:42 / sld	09/17/15 15:14	ICP2-HE_150920A	117	30567
METALS, TOTAL											
Mercury	0.13	mg/kg-dry		0.10		SW7471B	09/28/15 17:42 / rgk	09/24/15 15:56	HGCV201-H_150928A	27	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B Sediment Sieve 1-2mm
Lab ID: H15090206-036
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 11:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	10.3	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	27	R109505
PHYSICAL CHARACTERISTICS											
Moisture	27.6	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	37	R109875
3050 EXTRACTABLE METALS											
Aluminum	9310	mg/kg-dry		5		SW6010B	09/21/15 16:05 / sld	09/17/15 15:16	ICP2-HE_150921B	43	30568
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 22:08 / dck	09/17/15 15:16	ICPMS204-B_150924B	91	30568
Arsenic	5	mg/kg-dry		5		SW6020	09/24/15 22:08 / dck	09/17/15 15:16	ICPMS204-B_150924B	91	30568
Barium	97	mg/kg-dry		5		SW6010B	09/21/15 16:05 / sld	09/17/15 15:16	ICP2-HE_150921B	43	30568
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 16:05 / sld	09/17/15 15:16	ICP2-HE_150921B	43	30568
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 22:08 / dck	09/17/15 15:16	ICPMS204-B_150924B	91	30568
Cadmium	0.7	mg/kg-dry		0.2		SW6020	09/24/15 22:08 / dck	09/17/15 15:16	ICPMS204-B_150924B	91	30568
Chromium	ND	mg/kg-dry		5		SW6020	09/25/15 18:32 / dck	09/17/15 15:16	ICPMS204-B_150925B	146	30568
Cobalt	ND	mg/kg-dry		5		SW6020	09/24/15 22:08 / dck	09/17/15 15:16	ICPMS204-B_150924B	91	30568
Copper	28	mg/kg-dry		5		SW6010B	09/21/15 16:05 / sld	09/17/15 15:16	ICP2-HE_150921B	43	30568
Iron	9640	mg/kg-dry		5		SW6010B	09/21/15 16:05 / sld	09/17/15 15:16	ICP2-HE_150921B	43	30568
Lead	12	mg/kg-dry		5		SW6020	09/24/15 22:08 / dck	09/17/15 15:16	ICPMS204-B_150924B	91	30568
Manganese	444	mg/kg-dry		5		SW6010B	09/21/15 16:05 / sld	09/17/15 15:16	ICP2-HE_150921B	43	30568
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 22:08 / dck	09/17/15 15:16	ICPMS204-B_150924B	91	30568
Nickel	ND	mg/kg-dry		5		SW6010B	09/21/15 16:05 / sld	09/17/15 15:16	ICP2-HE_150921B	43	30568
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 22:08 / dck	09/17/15 15:16	ICPMS204-B_150924B	91	30568
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 22:08 / dck	09/17/15 15:16	ICPMS204-B_150924B	91	30568
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 22:08 / dck	09/17/15 15:16	ICPMS204-B_150924B	91	30568
Vanadium	16	mg/kg-dry		1		SW6010B	09/21/15 16:05 / sld	09/17/15 15:16	ICP2-HE_150921B	43	30568
Zinc	127	mg/kg-dry		5		SW6010B	09/21/15 16:05 / sld	09/17/15 15:16	ICP2-HE_150921B	43	30568
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/28/15 17:49 / rgk	09/24/15 15:56	HGCV201-H_150928A	30	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C Sediment Sieve <0.065mm
Lab ID: H15090206-037
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 10:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	2.8	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	28	R109505
PHYSICAL CHARACTERISTICS											
Moisture	64.6	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	38	R109875
3050 EXTRACTABLE METALS											
Aluminum	25300	mg/kg-dry		10		SW6010B	09/21/15 17:54 / sld	09/17/15 15:14	ICP2-HE_150921B	57	30566
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 19:38 / dck	09/17/15 15:14	ICPMS204-B_150924B	44	30566
Arsenic	30	mg/kg-dry		5		SW6020	09/24/15 19:38 / dck	09/17/15 15:14	ICPMS204-B_150924B	44	30566
Barium	434	mg/kg-dry		5		SW6010B	09/21/15 17:54 / sld	09/17/15 15:14	ICP2-HE_150921B	57	30566
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 17:54 / sld	09/17/15 15:14	ICP2-HE_150921B	57	30566
Boron	10	mg/kg-dry		6		SW6020	09/24/15 19:38 / dck	09/17/15 15:14	ICPMS204-B_150924B	44	30566
Cadmium	10.1	mg/kg-dry		0.5		SW6020	09/24/15 19:38 / dck	09/17/15 15:14	ICPMS204-B_150924B	44	30566
Chromium	28	mg/kg-dry		5		SW6020	09/25/15 17:20 / dck	09/17/15 15:14	ICPMS204-B_150925B	119	30566
Cobalt	14	mg/kg-dry		5		SW6020	09/25/15 17:20 / dck	09/17/15 15:14	ICPMS204-B_150925B	119	30566
Copper	516	mg/kg-dry		5		SW6010B	09/21/15 17:54 / sld	09/17/15 15:14	ICP2-HE_150921B	57	30566
Iron	27200	mg/kg-dry		8		SW6010B	09/21/15 17:54 / sld	09/17/15 15:14	ICP2-HE_150921B	57	30566
Lead	191	mg/kg-dry		5		SW6020	09/24/15 19:38 / dck	09/17/15 15:14	ICPMS204-B_150924B	44	30566
Manganese	3610	mg/kg-dry		5		SW6010B	09/21/15 17:54 / sld	09/17/15 15:14	ICP2-HE_150921B	57	30566
Molybdenum	5	mg/kg-dry		5		SW6020	09/24/15 19:38 / dck	09/17/15 15:14	ICPMS204-B_150924B	44	30566
Nickel	16	mg/kg-dry		5		SW6010B	09/21/15 17:54 / sld	09/17/15 15:14	ICP2-HE_150921B	57	30566
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 19:38 / dck	09/17/15 15:14	ICPMS204-B_150924B	44	30566
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 19:38 / dck	09/17/15 15:14	ICPMS204-B_150924B	44	30566
Uranium	7	mg/kg-dry		5		SW6020	09/24/15 19:38 / dck	09/17/15 15:14	ICPMS204-B_150924B	44	30566
Vanadium	64	mg/kg-dry		2		SW6010B	09/21/15 17:54 / sld	09/17/15 15:14	ICP2-HE_150921B	57	30566
Zinc	1700	mg/kg-dry		5		SW6010B	09/21/15 17:54 / sld	09/17/15 15:14	ICP2-HE_150921B	57	30566
METALS, TOTAL											
Mercury	0.61	mg/kg-dry		0.10		SW7471B	09/28/15 17:59 / rgk	09/24/15 15:56	HGCV201-H_150928A	34	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C Sediment Sieve 0.065-1mm
Lab ID: H15090206-038
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 10:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	22.1	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	29	R109505
PHYSICAL CHARACTERISTICS											
Moisture	23.7	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	39	R109875
3050 EXTRACTABLE METALS											
Aluminum	4630	mg/kg-dry		5		SW6010B	09/21/15 01:46 / sld	09/17/15 15:14	ICP2-HE_150920A	118	30567
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 20:55 / dck	09/17/15 15:14	ICPMS204-B_150924B	68	30567
Arsenic	5	mg/kg-dry		5		SW6020	09/24/15 20:55 / dck	09/17/15 15:14	ICPMS204-B_150924B	68	30567
Barium	112	mg/kg-dry		5		SW6010B	09/21/15 01:46 / sld	09/17/15 15:14	ICP2-HE_150920A	118	30567
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 01:46 / sld	09/17/15 15:14	ICP2-HE_150920A	118	30567
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 20:55 / dck	09/17/15 15:14	ICPMS204-B_150924B	68	30567
Cadmium	1.2	mg/kg-dry		0.2		SW6020	09/24/15 20:55 / dck	09/17/15 15:14	ICPMS204-B_150924B	68	30567
Chromium	20	mg/kg-dry		5		SW6020	09/25/15 17:57 / dck	09/17/15 15:14	ICPMS204-B_150925B	133	30567
Cobalt	6	mg/kg-dry		5		SW6020	09/25/15 17:57 / dck	09/17/15 15:14	ICPMS204-B_150925B	133	30567
Copper	44	mg/kg-dry		5		SW6010B	09/21/15 01:46 / sld	09/17/15 15:14	ICP2-HE_150920A	118	30567
Iron	33500	mg/kg-dry		5		SW6010B	09/21/15 01:46 / sld	09/17/15 15:14	ICP2-HE_150920A	118	30567
Lead	20	mg/kg-dry		5		SW6020	09/24/15 20:55 / dck	09/17/15 15:14	ICPMS204-B_150924B	68	30567
Manganese	545	mg/kg-dry		5		SW6010B	09/21/15 01:46 / sld	09/17/15 15:14	ICP2-HE_150920A	118	30567
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 20:55 / dck	09/17/15 15:14	ICPMS204-B_150924B	68	30567
Nickel	5	mg/kg-dry		5		SW6010B	09/21/15 01:46 / sld	09/17/15 15:14	ICP2-HE_150920A	118	30567
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 20:55 / dck	09/17/15 15:14	ICPMS204-B_150924B	68	30567
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 20:55 / dck	09/17/15 15:14	ICPMS204-B_150924B	68	30567
Uranium	5	mg/kg-dry		5		SW6020	09/24/15 20:55 / dck	09/17/15 15:14	ICPMS204-B_150924B	68	30567
Vanadium	105	mg/kg-dry		1		SW6010B	09/21/15 01:46 / sld	09/17/15 15:14	ICP2-HE_150920A	118	30567
Zinc	151	mg/kg-dry		5		SW6010B	09/21/15 01:46 / sld	09/17/15 15:14	ICP2-HE_150920A	118	30567
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/28/15 18:02 / rgk	09/24/15 15:56	HGCV201-H_150928A	35	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C Sediment Sieve 1-2mm
Lab ID: H15090206-039
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 10:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	18.6	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	30	R109505
PHYSICAL CHARACTERISTICS											
Moisture	19.2	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	40	R109875
3050 EXTRACTABLE METALS											
Aluminum	4180	mg/kg-dry		5		SW6010B	09/21/15 16:09 / sld	09/17/15 15:16	ICP2-HE_150921B	44	30568
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 22:11 / dck	09/17/15 15:16	ICPMS204-B_150924B	92	30568
Arsenic	ND	mg/kg-dry		5		SW6020	09/24/15 22:11 / dck	09/17/15 15:16	ICPMS204-B_150924B	92	30568
Barium	91	mg/kg-dry		5		SW6010B	09/21/15 16:09 / sld	09/17/15 15:16	ICP2-HE_150921B	44	30568
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 16:09 / sld	09/17/15 15:16	ICP2-HE_150921B	44	30568
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 22:11 / dck	09/17/15 15:16	ICPMS204-B_150924B	92	30568
Cadmium	0.4	mg/kg-dry		0.2		SW6020	09/24/15 22:11 / dck	09/17/15 15:16	ICPMS204-B_150924B	92	30568
Chromium	6	mg/kg-dry		5		SW6020	09/25/15 18:34 / dck	09/17/15 15:16	ICPMS204-B_150925B	147	30568
Cobalt	ND	mg/kg-dry		5		SW6020	09/24/15 22:11 / dck	09/17/15 15:16	ICPMS204-B_150924B	92	30568
Copper	22	mg/kg-dry		5		SW6010B	09/21/15 16:09 / sld	09/17/15 15:16	ICP2-HE_150921B	44	30568
Iron	7230	mg/kg-dry		5		SW6010B	09/21/15 16:09 / sld	09/17/15 15:16	ICP2-HE_150921B	44	30568
Lead	8	mg/kg-dry		5		SW6020	09/24/15 22:11 / dck	09/17/15 15:16	ICPMS204-B_150924B	92	30568
Manganese	492	mg/kg-dry		5		SW6010B	09/21/15 16:09 / sld	09/17/15 15:16	ICP2-HE_150921B	44	30568
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 22:11 / dck	09/17/15 15:16	ICPMS204-B_150924B	92	30568
Nickel	ND	mg/kg-dry		5		SW6010B	09/21/15 16:09 / sld	09/17/15 15:16	ICP2-HE_150921B	44	30568
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 22:11 / dck	09/17/15 15:16	ICPMS204-B_150924B	92	30568
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 22:11 / dck	09/17/15 15:16	ICPMS204-B_150924B	92	30568
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 22:11 / dck	09/17/15 15:16	ICPMS204-B_150924B	92	30568
Vanadium	18	mg/kg-dry		1		SW6010B	09/21/15 16:09 / sld	09/17/15 15:16	ICP2-HE_150921B	44	30568
Zinc	86	mg/kg-dry		5		SW6010B	09/21/15 16:09 / sld	09/17/15 15:16	ICP2-HE_150921B	44	30568
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/28/15 18:04 / rgk	09/24/15 15:56	HGCV201-H_150928A	36	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D Sediment Sieve <0.065mm
Lab ID: H15090206-040
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 09:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	4.6	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	31	R109505
PHYSICAL CHARACTERISTICS											
Moisture	66.2	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	42	R109875
3050 EXTRACTABLE METALS											
Aluminum	29200	mg/kg-dry		10		SW6010B	09/21/15 00:40 / sld	09/17/15 15:14	ICP2-HE_150920A	100	30566
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 19:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	48	30566
Arsenic	27	mg/kg-dry		5		SW6020	09/24/15 19:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	48	30566
Barium	492	mg/kg-dry		5		SW6010B	09/21/15 00:40 / sld	09/17/15 15:14	ICP2-HE_150920A	100	30566
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 00:40 / sld	09/17/15 15:14	ICP2-HE_150920A	100	30566
Boron	10	mg/kg-dry		6		SW6020	09/24/15 19:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	48	30566
Cadmium	11.3	mg/kg-dry		0.5		SW6020	09/24/15 19:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	48	30566
Chromium	31	mg/kg-dry		5		SW6020	09/25/15 17:23 / dck	09/17/15 15:14	ICPMS204-B_150925B	120	30566
Cobalt	14	mg/kg-dry		5		SW6020	09/25/15 17:23 / dck	09/17/15 15:14	ICPMS204-B_150925B	120	30566
Copper	487	mg/kg-dry		5		SW6010B	09/21/15 00:40 / sld	09/17/15 15:14	ICP2-HE_150920A	100	30566
Iron	27600	mg/kg-dry		8		SW6010B	09/21/15 00:40 / sld	09/17/15 15:14	ICP2-HE_150920A	100	30566
Lead	150	mg/kg-dry		5		SW6020	09/24/15 19:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	48	30566
Manganese	3660	mg/kg-dry		5		SW6010B	09/21/15 00:40 / sld	09/17/15 15:14	ICP2-HE_150920A	100	30566
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 19:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	48	30566
Nickel	17	mg/kg-dry		5		SW6010B	09/21/15 00:40 / sld	09/17/15 15:14	ICP2-HE_150920A	100	30566
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 19:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	48	30566
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 19:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	48	30566
Uranium	8	mg/kg-dry		5		SW6020	09/24/15 19:51 / dck	09/17/15 15:14	ICPMS204-B_150924B	48	30566
Vanadium	65	mg/kg-dry		2		SW6010B	09/21/15 00:40 / sld	09/17/15 15:14	ICP2-HE_150920A	100	30566
Zinc	1620	mg/kg-dry		5		SW6010B	09/21/15 00:40 / sld	09/17/15 15:14	ICP2-HE_150920A	100	30566
METALS, TOTAL											
Mercury	0.64	mg/kg-dry		0.10		SW7471B	09/28/15 18:07 / rgk	09/24/15 15:56	HGCV201-H_150928A	37	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D Sediment Sieve 0.065-1mm
Lab ID: H15090206-041
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 09:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	27.6	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	32	R109505
PHYSICAL CHARACTERISTICS											
Moisture	25.9	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	43	R109875
3050 EXTRACTABLE METALS											
Aluminum	4970	mg/kg-dry		5		SW6010B	09/21/15 01:50 / sld	09/17/15 15:14	ICP2-HE_150920A	119	30567
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 21:08 / dck	09/17/15 15:14	ICPMS204-B_150924B	72	30567
Arsenic	ND	mg/kg-dry		5		SW6020	09/24/15 21:08 / dck	09/17/15 15:14	ICPMS204-B_150924B	72	30567
Barium	126	mg/kg-dry		5		SW6010B	09/21/15 01:50 / sld	09/17/15 15:14	ICP2-HE_150920A	119	30567
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 01:50 / sld	09/17/15 15:14	ICP2-HE_150920A	119	30567
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 21:08 / dck	09/17/15 15:14	ICPMS204-B_150924B	72	30567
Cadmium	0.6	mg/kg-dry		0.2		SW6020	09/24/15 21:08 / dck	09/17/15 15:14	ICPMS204-B_150924B	72	30567
Chromium	8	mg/kg-dry		5		SW6020	09/25/15 18:00 / dck	09/17/15 15:14	ICPMS204-B_150925B	134	30567
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 18:00 / dck	09/17/15 15:14	ICPMS204-B_150925B	134	30567
Copper	28	mg/kg-dry		5		SW6010B	09/21/15 01:50 / sld	09/17/15 15:14	ICP2-HE_150920A	119	30567
Iron	6250	mg/kg-dry		5		SW6010B	09/21/15 01:50 / sld	09/17/15 15:14	ICP2-HE_150920A	119	30567
Lead	21	mg/kg-dry		5		SW6020	09/24/15 21:08 / dck	09/17/15 15:14	ICPMS204-B_150924B	72	30567
Manganese	591	mg/kg-dry		5		SW6010B	09/21/15 01:50 / sld	09/17/15 15:14	ICP2-HE_150920A	119	30567
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 21:08 / dck	09/17/15 15:14	ICPMS204-B_150924B	72	30567
Nickel	ND	mg/kg-dry		5		SW6010B	09/21/15 01:50 / sld	09/17/15 15:14	ICP2-HE_150920A	119	30567
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 21:08 / dck	09/17/15 15:14	ICPMS204-B_150924B	72	30567
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 21:08 / dck	09/17/15 15:14	ICPMS204-B_150924B	72	30567
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 21:08 / dck	09/17/15 15:14	ICPMS204-B_150924B	72	30567
Vanadium	13	mg/kg-dry		1		SW6010B	09/21/15 01:50 / sld	09/17/15 15:14	ICP2-HE_150920A	119	30567
Zinc	93	mg/kg-dry		5		SW6010B	09/21/15 01:50 / sld	09/17/15 15:14	ICP2-HE_150920A	119	30567
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/28/15 18:09 / rgk	09/24/15 15:56	HGCV201-H_150928A	38	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D Sediment Sieve 1-2mm
Lab ID: H15090206-042
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/09/15 09:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	12.4	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	33	R109505
PHYSICAL CHARACTERISTICS											
Moisture	21.1	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	44	R109875
3050 EXTRACTABLE METALS											
Aluminum	5500	mg/kg-dry		5		SW6010B	09/21/15 16:13 / sld	09/17/15 15:16	ICP2-HE_150921B	45	30568
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 22:24 / dck	09/17/15 15:16	ICPMS204-B_150924B	96	30568
Arsenic	6	mg/kg-dry		5		SW6020	09/24/15 22:24 / dck	09/17/15 15:16	ICPMS204-B_150924B	96	30568
Barium	132	mg/kg-dry		5		SW6010B	09/21/15 16:13 / sld	09/17/15 15:16	ICP2-HE_150921B	45	30568
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 16:13 / sld	09/17/15 15:16	ICP2-HE_150921B	45	30568
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 22:24 / dck	09/17/15 15:16	ICPMS204-B_150924B	96	30568
Cadmium	0.4	mg/kg-dry		0.2		SW6020	09/24/15 22:24 / dck	09/17/15 15:16	ICPMS204-B_150924B	96	30568
Chromium	9	mg/kg-dry		5		SW6020	09/24/15 22:24 / dck	09/17/15 15:16	ICPMS204-B_150924B	96	30568
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 18:37 / dck	09/17/15 15:16	ICPMS204-B_150925B	148	30568
Copper	22	mg/kg-dry		5		SW6010B	09/21/15 16:13 / sld	09/17/15 15:16	ICP2-HE_150921B	45	30568
Iron	6710	mg/kg-dry		5		SW6010B	09/21/15 16:13 / sld	09/17/15 15:16	ICP2-HE_150921B	45	30568
Lead	15	mg/kg-dry		5		SW6020	09/24/15 22:24 / dck	09/17/15 15:16	ICPMS204-B_150924B	96	30568
Manganese	741	mg/kg-dry		5		SW6010B	09/21/15 16:13 / sld	09/17/15 15:16	ICP2-HE_150921B	45	30568
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 22:24 / dck	09/17/15 15:16	ICPMS204-B_150924B	96	30568
Nickel	5	mg/kg-dry		5		SW6010B	09/21/15 16:13 / sld	09/17/15 15:16	ICP2-HE_150921B	45	30568
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 22:24 / dck	09/17/15 15:16	ICPMS204-B_150924B	96	30568
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 22:24 / dck	09/17/15 15:16	ICPMS204-B_150924B	96	30568
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 22:24 / dck	09/17/15 15:16	ICPMS204-B_150924B	96	30568
Vanadium	12	mg/kg-dry		1		SW6010B	09/21/15 16:13 / sld	09/17/15 15:16	ICP2-HE_150921B	45	30568
Zinc	100	mg/kg-dry		5		SW6010B	09/21/15 16:13 / sld	09/17/15 15:16	ICP2-HE_150921B	45	30568
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/28/15 18:12 / rgk	09/24/15 15:56	HGCV201-H_150928A	39	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13 Sediment Sieve <0.065mm
Lab ID: H15090206-043
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 18:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	5.4	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	34	R109505
PHYSICAL CHARACTERISTICS											
Moisture	74.0	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	45	R109875
3050 EXTRACTABLE METALS											
Aluminum	21200	mg/kg-dry		10		SW6010B	09/21/15 00:43 / sld	09/17/15 15:14	ICP2-HE_150920A	101	30566
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 19:54 / dck	09/17/15 15:14	ICPMS204-B_150924B	49	30566
Arsenic	26	mg/kg-dry		5		SW6020	09/24/15 19:54 / dck	09/17/15 15:14	ICPMS204-B_150924B	49	30566
Barium	300	mg/kg-dry		5		SW6010B	09/21/15 00:43 / sld	09/17/15 15:14	ICP2-HE_150920A	101	30566
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 00:43 / sld	09/17/15 15:14	ICP2-HE_150920A	101	30566
Boron	10	mg/kg-dry		8		SW6020	09/24/15 19:54 / dck	09/17/15 15:14	ICPMS204-B_150924B	49	30566
Cadmium	10.1	mg/kg-dry		0.6		SW6020	09/24/15 19:54 / dck	09/17/15 15:14	ICPMS204-B_150924B	49	30566
Chromium	28	mg/kg-dry		5		SW6020	09/25/15 17:25 / dck	09/17/15 15:14	ICPMS204-B_150925B	121	30566
Cobalt	12	mg/kg-dry		5		SW6020	09/25/15 17:25 / dck	09/17/15 15:14	ICPMS204-B_150925B	121	30566
Copper	582	mg/kg-dry		5		SW6010B	09/21/15 00:43 / sld	09/17/15 15:14	ICP2-HE_150920A	101	30566
Iron	23100	mg/kg-dry		10		SW6010B	09/21/15 00:43 / sld	09/17/15 15:14	ICP2-HE_150920A	101	30566
Lead	150	mg/kg-dry		5		SW6020	09/24/15 19:54 / dck	09/17/15 15:14	ICPMS204-B_150924B	49	30566
Manganese	2260	mg/kg-dry		5		SW6010B	09/21/15 00:43 / sld	09/17/15 15:14	ICP2-HE_150920A	101	30566
Molybdenum	5	mg/kg-dry		5		SW6020	09/24/15 19:54 / dck	09/17/15 15:14	ICPMS204-B_150924B	49	30566
Nickel	14	mg/kg-dry		5		SW6010B	09/21/15 00:43 / sld	09/17/15 15:14	ICP2-HE_150920A	101	30566
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 19:54 / dck	09/17/15 15:14	ICPMS204-B_150924B	49	30566
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 19:54 / dck	09/17/15 15:14	ICPMS204-B_150924B	49	30566
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 19:54 / dck	09/17/15 15:14	ICPMS204-B_150924B	49	30566
Vanadium	46	mg/kg-dry		3		SW6010B	09/21/15 00:43 / sld	09/17/15 15:14	ICP2-HE_150920A	101	30566
Zinc	1840	mg/kg-dry		5		SW6010B	09/21/15 00:43 / sld	09/17/15 15:14	ICP2-HE_150920A	101	30566
METALS, TOTAL											
Mercury	0.63	mg/kg-dry		0.10		SW7471B	09/28/15 18:14 / rgk	09/24/15 15:56	HGCV201-H_150928A	40	30590

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13 Sediment Sieve 0.065-1mm
Lab ID: H15090206-044
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 18:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	17.0	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	35	R109505
PHYSICAL CHARACTERISTICS											
Moisture	31.5	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	46	R109875
3050 EXTRACTABLE METALS											
Aluminum	8320	mg/kg-dry		5		SW6010B	09/21/15 01:53 / sld	09/17/15 15:14	ICP2-HE_150920A	120	30567
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 21:11 / dck	09/17/15 15:14	ICPMS204-B_150924B	73	30567
Arsenic	6	mg/kg-dry		5		SW6020	09/24/15 21:11 / dck	09/17/15 15:14	ICPMS204-B_150924B	73	30567
Barium	195	mg/kg-dry		5		SW6010B	09/21/15 01:53 / sld	09/17/15 15:14	ICP2-HE_150920A	120	30567
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 01:53 / sld	09/17/15 15:14	ICP2-HE_150920A	120	30567
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 21:11 / dck	09/17/15 15:14	ICPMS204-B_150924B	73	30567
Cadmium	2.1	mg/kg-dry		0.2		SW6020	09/24/15 21:11 / dck	09/17/15 15:14	ICPMS204-B_150924B	73	30567
Chromium	12	mg/kg-dry		5		SW6020	09/25/15 18:02 / dck	09/17/15 15:14	ICPMS204-B_150925B	135	30567
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 18:02 / dck	09/17/15 15:14	ICPMS204-B_150925B	135	30567
Copper	89	mg/kg-dry		5		SW6010B	09/21/15 01:53 / sld	09/17/15 15:14	ICP2-HE_150920A	120	30567
Iron	12400	mg/kg-dry		5		SW6010B	09/21/15 01:53 / sld	09/17/15 15:14	ICP2-HE_150920A	120	30567
Lead	26	mg/kg-dry		5		SW6020	09/24/15 21:11 / dck	09/17/15 15:14	ICPMS204-B_150924B	73	30567
Manganese	511	mg/kg-dry		5		SW6010B	09/21/15 01:53 / sld	09/17/15 15:14	ICP2-HE_150920A	120	30567
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 21:11 / dck	09/17/15 15:14	ICPMS204-B_150924B	73	30567
Nickel	6	mg/kg-dry		5		SW6010B	09/21/15 01:53 / sld	09/17/15 15:14	ICP2-HE_150920A	120	30567
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 21:11 / dck	09/17/15 15:14	ICPMS204-B_150924B	73	30567
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 21:11 / dck	09/17/15 15:14	ICPMS204-B_150924B	73	30567
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 21:11 / dck	09/17/15 15:14	ICPMS204-B_150924B	73	30567
Vanadium	27	mg/kg-dry		1		SW6010B	09/21/15 01:53 / sld	09/17/15 15:14	ICP2-HE_150920A	120	30567
Zinc	304	mg/kg-dry		5		SW6010B	09/21/15 01:53 / sld	09/17/15 15:14	ICP2-HE_150920A	120	30567
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/24/15 12:51 / rgk	09/21/15 09:00	HGCV201-H_150924B	13	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13 Sediment Sieve 1-2mm
Lab ID: H15090206-045
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 18:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	18.2	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	36	R109505
PHYSICAL CHARACTERISTICS											
Moisture	16.9	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	47	R109875
3050 EXTRACTABLE METALS											
Aluminum	4790	mg/kg-dry		5		SW6010B	09/21/15 16:17 / sld	09/17/15 15:16	ICP2-HE_150921B	46	30568
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 22:27 / dck	09/17/15 15:16	ICPMS204-B_150924B	97	30568
Arsenic	6	mg/kg-dry		5		SW6020	09/24/15 22:27 / dck	09/17/15 15:16	ICPMS204-B_150924B	97	30568
Barium	127	mg/kg-dry		5		SW6010B	09/21/15 16:17 / sld	09/17/15 15:16	ICP2-HE_150921B	46	30568
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 16:17 / sld	09/17/15 15:16	ICP2-HE_150921B	46	30568
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 22:27 / dck	09/17/15 15:16	ICPMS204-B_150924B	97	30568
Cadmium	0.4	mg/kg-dry		0.2		SW6020	09/24/15 22:27 / dck	09/17/15 15:16	ICPMS204-B_150924B	97	30568
Chromium	12	mg/kg-dry		5		SW6020	09/24/15 22:27 / dck	09/17/15 15:16	ICPMS204-B_150924B	97	30568
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 18:40 / dck	09/17/15 15:16	ICPMS204-B_150925B	149	30568
Copper	17	mg/kg-dry		5		SW6010B	09/21/15 16:17 / sld	09/17/15 15:16	ICP2-HE_150921B	46	30568
Iron	7900	mg/kg-dry		5		SW6010B	09/21/15 16:17 / sld	09/17/15 15:16	ICP2-HE_150921B	46	30568
Lead	9	mg/kg-dry		5		SW6020	09/24/15 22:27 / dck	09/17/15 15:16	ICPMS204-B_150924B	97	30568
Manganese	393	mg/kg-dry		5		SW6010B	09/21/15 16:17 / sld	09/17/15 15:16	ICP2-HE_150921B	46	30568
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 22:27 / dck	09/17/15 15:16	ICPMS204-B_150924B	97	30568
Nickel	7	mg/kg-dry		5		SW6010B	09/21/15 16:17 / sld	09/17/15 15:16	ICP2-HE_150921B	46	30568
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 22:27 / dck	09/17/15 15:16	ICPMS204-B_150924B	97	30568
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 22:27 / dck	09/17/15 15:16	ICPMS204-B_150924B	97	30568
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 22:27 / dck	09/17/15 15:16	ICPMS204-B_150924B	97	30568
Vanadium	14	mg/kg-dry		1		SW6010B	09/21/15 16:17 / sld	09/17/15 15:16	ICP2-HE_150921B	46	30568
Zinc	132	mg/kg-dry		5		SW6010B	09/21/15 16:17 / sld	09/17/15 15:16	ICP2-HE_150921B	46	30568
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/24/15 13:01 / rgk	09/21/15 09:00	HGCV201-H_150924B	17	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14 Sediment Sieve <0.065mm
Lab ID: H15090206-046
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 17:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	3.5	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	37	R109505
PHYSICAL CHARACTERISTICS											
Moisture	64.3	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	48	R109875
3050 EXTRACTABLE METALS											
Aluminum	27500	mg/kg-dry		10		SW6010B	09/21/15 00:47 / sld	09/17/15 15:14	ICP2-HE_150920A	102	30566
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 19:58 / dck	09/17/15 15:14	ICPMS204-B_150924B	50	30566
Arsenic	31	mg/kg-dry		5		SW6020	09/24/15 19:58 / dck	09/17/15 15:14	ICPMS204-B_150924B	50	30566
Barium	459	mg/kg-dry		5		SW6010B	09/21/15 00:47 / sld	09/17/15 15:14	ICP2-HE_150920A	102	30566
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 00:47 / sld	09/17/15 15:14	ICP2-HE_150920A	102	30566
Boron	12	mg/kg-dry		6		SW6020	09/24/15 19:58 / dck	09/17/15 15:14	ICPMS204-B_150924B	50	30566
Cadmium	8.1	mg/kg-dry		0.5		SW6020	09/24/15 19:58 / dck	09/17/15 15:14	ICPMS204-B_150924B	50	30566
Chromium	37	mg/kg-dry		5		SW6020	09/25/15 17:28 / dck	09/17/15 15:14	ICPMS204-B_150925B	122	30566
Cobalt	12	mg/kg-dry		5		SW6020	09/25/15 17:28 / dck	09/17/15 15:14	ICPMS204-B_150925B	122	30566
Copper	463	mg/kg-dry		5		SW6010B	09/21/15 00:47 / sld	09/17/15 15:14	ICP2-HE_150920A	102	30566
Iron	28500	mg/kg-dry		8		SW6010B	09/21/15 00:47 / sld	09/17/15 15:14	ICP2-HE_150920A	102	30566
Lead	241	mg/kg-dry		5		SW6020	09/24/15 19:58 / dck	09/17/15 15:14	ICPMS204-B_150924B	50	30566
Manganese	2780	mg/kg-dry		5		SW6010B	09/21/15 00:47 / sld	09/17/15 15:14	ICP2-HE_150920A	102	30566
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 19:58 / dck	09/17/15 15:14	ICPMS204-B_150924B	50	30566
Nickel	22	mg/kg-dry		5		SW6010B	09/21/15 00:47 / sld	09/17/15 15:14	ICP2-HE_150920A	102	30566
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 19:58 / dck	09/17/15 15:14	ICPMS204-B_150924B	50	30566
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 19:58 / dck	09/17/15 15:14	ICPMS204-B_150924B	50	30566
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 19:58 / dck	09/17/15 15:14	ICPMS204-B_150924B	50	30566
Vanadium	60	mg/kg-dry		2		SW6010B	09/21/15 00:47 / sld	09/17/15 15:14	ICP2-HE_150920A	102	30566
Zinc	1760	mg/kg-dry		5		SW6010B	09/21/15 00:47 / sld	09/17/15 15:14	ICP2-HE_150920A	102	30566
METALS, TOTAL											
Mercury	0.58	mg/kg-dry		0.10		SW7471B	09/24/15 13:04 / rgk	09/21/15 09:00	HGCV201-H_150924B	18	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14 Sediment Sieve 0.065-1mm
Lab ID: H15090206-047
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 17:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	38.1	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	38	R109505
PHYSICAL CHARACTERISTICS											
Moisture	20.4	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	49	R109875
3050 EXTRACTABLE METALS											
Aluminum	5790	mg/kg-dry		5		SW6010B	09/21/15 01:57 / sld	09/17/15 15:14	ICP2-HE_150920A	121	30567
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 21:14 / dck	09/17/15 15:14	ICPMS204-B_150924B	74	30567
Arsenic	7	mg/kg-dry		5		SW6020	09/24/15 21:14 / dck	09/17/15 15:14	ICPMS204-B_150924B	74	30567
Barium	152	mg/kg-dry		5		SW6010B	09/21/15 01:57 / sld	09/17/15 15:14	ICP2-HE_150920A	121	30567
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 01:57 / sld	09/17/15 15:14	ICP2-HE_150920A	121	30567
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 21:14 / dck	09/17/15 15:14	ICPMS204-B_150924B	74	30567
Cadmium	0.8	mg/kg-dry		0.2		SW6020	09/24/15 21:14 / dck	09/17/15 15:14	ICPMS204-B_150924B	74	30567
Chromium	13	mg/kg-dry		5		SW6020	09/25/15 18:05 / dck	09/17/15 15:14	ICPMS204-B_150925B	136	30567
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 18:05 / dck	09/17/15 15:14	ICPMS204-B_150925B	136	30567
Copper	44	mg/kg-dry		5		SW6010B	09/21/15 01:57 / sld	09/17/15 15:14	ICP2-HE_150920A	121	30567
Iron	14500	mg/kg-dry		5		SW6010B	09/21/15 01:57 / sld	09/17/15 15:14	ICP2-HE_150920A	121	30567
Lead	42	mg/kg-dry		5		SW6020	09/24/15 21:14 / dck	09/17/15 15:14	ICPMS204-B_150924B	74	30567
Manganese	741	mg/kg-dry		5		SW6010B	09/21/15 01:57 / sld	09/17/15 15:14	ICP2-HE_150920A	121	30567
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 21:14 / dck	09/17/15 15:14	ICPMS204-B_150924B	74	30567
Nickel	ND	mg/kg-dry		5		SW6010B	09/21/15 01:57 / sld	09/17/15 15:14	ICP2-HE_150920A	121	30567
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 21:14 / dck	09/17/15 15:14	ICPMS204-B_150924B	74	30567
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 21:14 / dck	09/17/15 15:14	ICPMS204-B_150924B	74	30567
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 21:14 / dck	09/17/15 15:14	ICPMS204-B_150924B	74	30567
Vanadium	38	mg/kg-dry		1		SW6010B	09/21/15 01:57 / sld	09/17/15 15:14	ICP2-HE_150920A	121	30567
Zinc	200	mg/kg-dry		5		SW6010B	09/21/15 01:57 / sld	09/17/15 15:14	ICP2-HE_150920A	121	30567
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/24/15 13:06 / rgk	09/21/15 09:00	HGCV201-H_150924B	19	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14 Sediment Sieve 1-2mm
Lab ID: H15090206-048
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 17:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	11.9	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	39	R109505
PHYSICAL CHARACTERISTICS											
Moisture	23.0	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	50	R109875
3050 EXTRACTABLE METALS											
Aluminum	4770	mg/kg-dry		5		SW6010B	09/21/15 16:20 / sld	09/17/15 15:16	ICP2-HE_150921B	47	30568
Antimony	ND	mg/kg-dry		5		SW6020	09/24/15 22:31 / dck	09/17/15 15:16	ICPMS204-B_150924B	98	30568
Arsenic	6	mg/kg-dry		5		SW6020	09/24/15 22:31 / dck	09/17/15 15:16	ICPMS204-B_150924B	98	30568
Barium	131	mg/kg-dry		5		SW6010B	09/21/15 16:20 / sld	09/17/15 15:16	ICP2-HE_150921B	47	30568
Beryllium	ND	mg/kg-dry		5		SW6010B	09/21/15 16:20 / sld	09/17/15 15:16	ICP2-HE_150921B	47	30568
Boron	ND	mg/kg-dry		5		SW6020	09/24/15 22:31 / dck	09/17/15 15:16	ICPMS204-B_150924B	98	30568
Cadmium	0.4	mg/kg-dry		0.2		SW6020	09/24/15 22:31 / dck	09/17/15 15:16	ICPMS204-B_150924B	98	30568
Chromium	7	mg/kg-dry		5		SW6020	09/24/15 22:31 / dck	09/17/15 15:16	ICPMS204-B_150924B	98	30568
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 18:42 / dck	09/17/15 15:16	ICPMS204-B_150925B	150	30568
Copper	25	mg/kg-dry		5		SW6010B	09/21/15 16:20 / sld	09/17/15 15:16	ICP2-HE_150921B	47	30568
Iron	6360	mg/kg-dry		5		SW6010B	09/21/15 16:20 / sld	09/17/15 15:16	ICP2-HE_150921B	47	30568
Lead	18	mg/kg-dry		5		SW6020	09/24/15 22:31 / dck	09/17/15 15:16	ICPMS204-B_150924B	98	30568
Manganese	376	mg/kg-dry		5		SW6010B	09/21/15 16:20 / sld	09/17/15 15:16	ICP2-HE_150921B	47	30568
Molybdenum	ND	mg/kg-dry		5		SW6020	09/24/15 22:31 / dck	09/17/15 15:16	ICPMS204-B_150924B	98	30568
Nickel	ND	mg/kg-dry		5		SW6010B	09/21/15 16:20 / sld	09/17/15 15:16	ICP2-HE_150921B	47	30568
Selenium	ND	mg/kg-dry		5		SW6020	09/24/15 22:31 / dck	09/17/15 15:16	ICPMS204-B_150924B	98	30568
Silver	ND	mg/kg-dry		5		SW6020	09/24/15 22:31 / dck	09/17/15 15:16	ICPMS204-B_150924B	98	30568
Uranium	ND	mg/kg-dry		5		SW6020	09/24/15 22:31 / dck	09/17/15 15:16	ICPMS204-B_150924B	98	30568
Vanadium	13	mg/kg-dry		1		SW6010B	09/21/15 16:20 / sld	09/17/15 15:16	ICP2-HE_150921B	47	30568
Zinc	127	mg/kg-dry		5		SW6010B	09/21/15 16:20 / sld	09/17/15 15:16	ICP2-HE_150921B	47	30568
METALS, TOTAL											
Mercury	0.19	mg/kg-dry		0.10		SW7471B	09/24/15 13:09 / rgk	09/21/15 09:00	HGCV201-H_150924B	20	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: Sediment duplicate #1 Sediment Sieve <0.065mm
Collection Date: 09/08/15 17:00
DateReceived: 09/10/15
Lab ID: H15090206-049
Report Date: 10/06/15
Revised Date: 10/23/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	1.8	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	40	R109505
PHYSICAL CHARACTERISTICS											
Moisture	61.7	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	51	R109875
3050 EXTRACTABLE METALS											
Aluminum	17800	mg/kg-dry		9		SW6010B	09/23/15 23:26 / sld	09/22/15 08:06	ICP2-HE_150923C	73	30587
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 13:53 / dck	09/22/15 08:06	ICPMS204-B_150925B	67	30587
Arsenic	24	mg/kg-dry		5		SW6020	09/25/15 13:53 / dck	09/22/15 08:06	ICPMS204-B_150925B	67	30587
Barium	331	mg/kg-dry		5		SW6010B	09/23/15 23:26 / sld	09/22/15 08:06	ICP2-HE_150923C	73	30587
Beryllium	ND	mg/kg-dry		5		SW6010B	09/23/15 23:26 / sld	09/22/15 08:06	ICP2-HE_150923C	73	30587
Boron	9	mg/kg-dry		6		SW6020	09/29/15 01:16 / dck	09/22/15 08:06	ICPMS204-B_150928A	16	30587
Cadmium	7.2	mg/kg-dry		0.4		SW6020	09/25/15 13:53 / dck	09/22/15 08:06	ICPMS204-B_150925B	67	30587
Chromium	24	mg/kg-dry		5		SW6020	09/25/15 13:53 / dck	09/22/15 08:06	ICPMS204-B_150925B	67	30587
Cobalt	9	mg/kg-dry		5		SW6020	09/25/15 13:53 / dck	09/22/15 08:06	ICPMS204-B_150925B	67	30587
Copper	350	mg/kg-dry		5		SW6010B	09/23/15 23:26 / sld	09/22/15 08:06	ICP2-HE_150923C	73	30587
Iron	20900	mg/kg-dry		8		SW6010B	09/23/15 23:26 / sld	09/22/15 08:06	ICP2-HE_150923C	73	30587
Lead	146	mg/kg-dry		5		SW6020	09/25/15 13:53 / dck	09/22/15 08:06	ICPMS204-B_150925B	67	30587
Manganese	2810	mg/kg-dry		5		SW6010B	09/23/15 23:26 / sld	09/22/15 08:06	ICP2-HE_150923C	73	30587
Molybdenum	ND	mg/kg-dry		5		SW6020	09/25/15 13:53 / dck	09/22/15 08:06	ICPMS204-B_150925B	67	30587
Nickel	13	mg/kg-dry		5		SW6010B	09/23/15 23:26 / sld	09/22/15 08:06	ICP2-HE_150923C	73	30587
Selenium	ND	mg/kg-dry		5		SW6020	09/25/15 13:53 / dck	09/22/15 08:06	ICPMS204-B_150925B	67	30587
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 13:53 / dck	09/22/15 08:06	ICPMS204-B_150925B	67	30587
Uranium	ND	mg/kg-dry		5		SW6020	09/25/15 13:53 / dck	09/22/15 08:06	ICPMS204-B_150925B	67	30587
Vanadium	45	mg/kg-dry		2		SW6010B	09/23/15 23:26 / sld	09/22/15 08:06	ICP2-HE_150923C	73	30587
Zinc	1440	mg/kg-dry		5		SW6010B	09/23/15 23:26 / sld	09/22/15 08:06	ICP2-HE_150923C	73	30587
METALS, TOTAL											
Mercury	0.54	mg/kg-dry		0.10		SW7471B	09/24/15 13:11 / rgk	09/21/15 09:00	HGCV201-H_150924B	21	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: Sediment duplicate #1 Sediment Sieve 0.065-1mm
Collection Date: 09/08/15 17:00
DateReceived: 09/10/15
Lab ID: H15090206-050
Report Date: 10/06/15
Revised Date: 10/23/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	44.4	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	41	R109505
PHYSICAL CHARACTERISTICS											
Moisture	25.6	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	53	R109875
3050 EXTRACTABLE METALS											
Aluminum	5950	mg/kg-dry		5		SW6010B	09/24/15 00:48 / sld	09/22/15 08:06	ICP2-HE_150923C	95	30593
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 12:42 / dck	09/22/15 08:06	ICPMS204-B_150925B	45	30593
Arsenic	6	mg/kg-dry		5		SW6020	09/25/15 12:42 / dck	09/22/15 08:06	ICPMS204-B_150925B	45	30593
Barium	180	mg/kg-dry		5		SW6010B	09/24/15 00:48 / sld	09/22/15 08:06	ICP2-HE_150923C	95	30593
Beryllium	ND	mg/kg-dry		5		SW6010B	09/24/15 00:48 / sld	09/22/15 08:06	ICP2-HE_150923C	95	30593
Boron	ND	mg/kg-dry		5		SW6020	09/29/15 01:38 / dck	09/22/15 08:06	ICPMS204-B_150928A	23	30593
Cadmium	0.6	mg/kg-dry		0.2		SW6020	09/25/15 12:42 / dck	09/22/15 08:06	ICPMS204-B_150925B	45	30593
Chromium	12	mg/kg-dry		5		SW6020	09/25/15 12:42 / dck	09/22/15 08:06	ICPMS204-B_150925B	45	30593
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 12:42 / dck	09/22/15 08:06	ICPMS204-B_150925B	45	30593
Copper	69	mg/kg-dry		5		SW6010B	09/24/15 00:48 / sld	09/22/15 08:06	ICP2-HE_150923C	95	30593
Iron	13100	mg/kg-dry		5		SW6010B	09/24/15 00:48 / sld	09/22/15 08:06	ICP2-HE_150923C	95	30593
Lead	15	mg/kg-dry		5		SW6020	09/25/15 12:42 / dck	09/22/15 08:06	ICPMS204-B_150925B	45	30593
Manganese	421	mg/kg-dry		5		SW6010B	09/24/15 00:48 / sld	09/22/15 08:06	ICP2-HE_150923C	95	30593
Molybdenum	ND	mg/kg-dry		5		SW6020	09/25/15 12:42 / dck	09/22/15 08:06	ICPMS204-B_150925B	45	30593
Nickel	5	mg/kg-dry		5		SW6010B	09/24/15 00:48 / sld	09/22/15 08:06	ICP2-HE_150923C	95	30593
Selenium	ND	mg/kg-dry		5		SW6020	09/25/15 12:42 / dck	09/22/15 08:06	ICPMS204-B_150925B	45	30593
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 12:42 / dck	09/22/15 08:06	ICPMS204-B_150925B	45	30593
Uranium	ND	mg/kg-dry		5		SW6020	09/25/15 12:42 / dck	09/22/15 08:06	ICPMS204-B_150925B	45	30593
Vanadium	33	mg/kg-dry		1		SW6010B	09/24/15 00:48 / sld	09/22/15 08:06	ICP2-HE_150923C	95	30593
Zinc	180	mg/kg-dry		5		SW6010B	09/24/15 00:48 / sld	09/22/15 08:06	ICP2-HE_150923C	95	30593
METALS, TOTAL											
Mercury	0.12	mg/kg-dry		0.10		SW7471B	09/24/15 13:14 / rgk	09/21/15 09:00	HGCV201-H_150924B	22	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: Sediment duplicate #1 Sediment Sieve 1-2mm
Collection Date: 09/08/15 17:00
DateReceived: 09/10/15
Lab ID: H15090206-051
Report Date: 10/06/15
Revised Date: 10/23/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	11.9	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	42	R109505
PHYSICAL CHARACTERISTICS											
Moisture	21.7	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	54	R109875
3050 EXTRACTABLE METALS											
Aluminum	6340	mg/kg-dry		5		SW6010B	09/24/15 01:44 / sld	09/22/15 08:06	ICP2-HE_150923C	110	30594
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 14:38 / dck	09/22/15 08:06	ICPMS204-B_150925B	84	30594
Arsenic	198	mg/kg-dry		5		SW6020	09/25/15 14:38 / dck	09/22/15 08:06	ICPMS204-B_150925B	84	30594
Barium	269	mg/kg-dry		5		SW6010B	09/24/15 01:44 / sld	09/22/15 08:06	ICP2-HE_150923C	110	30594
Beryllium	ND	mg/kg-dry		5		SW6010B	09/24/15 01:44 / sld	09/22/15 08:06	ICP2-HE_150923C	110	30594
Boron	ND	mg/kg-dry		5		SW6020	09/29/15 02:11 / dck	09/22/15 08:06	ICPMS204-B_150928A	33	30594
Cadmium	0.8	mg/kg-dry		0.2		SW6020	09/25/15 14:38 / dck	09/22/15 08:06	ICPMS204-B_150925B	84	30594
Chromium	10	mg/kg-dry		5		SW6020	09/25/15 14:38 / dck	09/22/15 08:06	ICPMS204-B_150925B	84	30594
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 14:38 / dck	09/22/15 08:06	ICPMS204-B_150925B	84	30594
Copper	404	mg/kg-dry		5		SW6010B	09/24/15 01:44 / sld	09/22/15 08:06	ICP2-HE_150923C	110	30594
Iron	8240	mg/kg-dry		5		SW6010B	09/24/15 01:44 / sld	09/22/15 08:06	ICP2-HE_150923C	110	30594
Lead	374	mg/kg-dry		5		SW6020	09/25/15 14:38 / dck	09/22/15 08:06	ICPMS204-B_150925B	84	30594
Manganese	637	mg/kg-dry		5		SW6010B	09/24/15 01:44 / sld	09/22/15 08:06	ICP2-HE_150923C	110	30594
Molybdenum	ND	mg/kg-dry		5		SW6020	09/25/15 14:38 / dck	09/22/15 08:06	ICPMS204-B_150925B	84	30594
Nickel	ND	mg/kg-dry		5		SW6010B	09/24/15 01:44 / sld	09/22/15 08:06	ICP2-HE_150923C	110	30594
Selenium	ND	mg/kg-dry		5		SW6020	09/29/15 02:11 / dck	09/22/15 08:06	ICPMS204-B_150928A	33	30594
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 14:38 / dck	09/22/15 08:06	ICPMS204-B_150925B	84	30594
Uranium	ND	mg/kg-dry		5		SW6020	09/25/15 14:38 / dck	09/22/15 08:06	ICPMS204-B_150925B	84	30594
Vanadium	15	mg/kg-dry		1		SW6010B	09/24/15 01:44 / sld	09/22/15 08:06	ICP2-HE_150923C	110	30594
Zinc	162	mg/kg-dry		5		SW6010B	09/24/15 01:44 / sld	09/22/15 08:06	ICP2-HE_150923C	110	30594
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/24/15 13:17 / rgk	09/21/15 09:00	HGCV201-H_150924B	23	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A Sediment Sieve <0.065mm
Lab ID: H15090206-052
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 15:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	6.1	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	43	R109505
PHYSICAL CHARACTERISTICS											
Moisture	84.6	wt%		0.2		D2974	10/02/15 09:40 / AH		DRYING OVEN 2_151001B	1	R109875
3050 EXTRACTABLE METALS											
Aluminum	25400	mg/kg-dry		20		SW6010B	09/23/15 23:30 / sld	09/22/15 08:06	ICP2-HE_150923C	74	30587
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 13:56 / dck	09/22/15 08:06	ICPMS204-B_150925B	68	30587
Arsenic	161	mg/kg-dry		5		SW6020	09/25/15 13:56 / dck	09/22/15 08:06	ICPMS204-B_150925B	68	30587
Barium	488	mg/kg-dry		5		SW6010B	09/23/15 23:30 / sld	09/22/15 08:06	ICP2-HE_150923C	74	30587
Beryllium	ND	mg/kg-dry		5		SW6010B	09/23/15 23:30 / sld	09/22/15 08:06	ICP2-HE_150923C	74	30587
Boron	16	mg/kg-dry		10		SW6020	09/29/15 01:19 / dck	09/22/15 08:06	ICPMS204-B_150928A	17	30587
Cadmium	16	mg/kg-dry		1		SW6020	09/25/15 13:56 / dck	09/22/15 08:06	ICPMS204-B_150925B	68	30587
Chromium	42	mg/kg-dry		5		SW6020	09/25/15 13:56 / dck	09/22/15 08:06	ICPMS204-B_150925B	68	30587
Cobalt	17	mg/kg-dry		5		SW6020	09/25/15 13:56 / dck	09/22/15 08:06	ICPMS204-B_150925B	68	30587
Copper	1560	mg/kg-dry		7		SW6010B	09/23/15 23:30 / sld	09/22/15 08:06	ICP2-HE_150923C	74	30587
Iron	37700	mg/kg-dry		20		SW6010B	09/23/15 23:30 / sld	09/22/15 08:06	ICP2-HE_150923C	74	30587
Lead	634	mg/kg-dry		5		SW6020	09/25/15 13:56 / dck	09/22/15 08:06	ICPMS204-B_150925B	68	30587
Manganese	6070	mg/kg-dry		5		SW6010B	09/23/15 23:30 / sld	09/22/15 08:06	ICP2-HE_150923C	74	30587
Molybdenum	5	mg/kg-dry		5		SW6020	09/25/15 13:56 / dck	09/22/15 08:06	ICPMS204-B_150925B	68	30587
Nickel	25	mg/kg-dry		5		SW6010B	09/23/15 23:30 / sld	09/22/15 08:06	ICP2-HE_150923C	74	30587
Selenium	ND	mg/kg-dry		5		SW6020	09/25/15 13:56 / dck	09/22/15 08:06	ICPMS204-B_150925B	68	30587
Silver	7	mg/kg-dry		5		SW6020	09/25/15 13:56 / dck	09/22/15 08:06	ICPMS204-B_150925B	68	30587
Uranium	5	mg/kg-dry		5		SW6020	09/25/15 13:56 / dck	09/22/15 08:06	ICPMS204-B_150925B	68	30587
Vanadium	76	mg/kg-dry		5		SW6010B	09/23/15 23:30 / sld	09/22/15 08:06	ICP2-HE_150923C	74	30587
Zinc	4120	mg/kg-dry		5		SW6010B	09/23/15 23:30 / sld	09/22/15 08:06	ICP2-HE_150923C	74	30587
METALS, TOTAL											
Mercury	2.6	mg/kg-dry		0.10		SW7471B	09/24/15 13:19 / rgk	09/21/15 09:00	HGCV201-H_150924B	24	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A Sediment Sieve 0.065-1mm
Lab ID: H15090206-053
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 15:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	38.7	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	44	R109505
PHYSICAL CHARACTERISTICS											
Moisture	21.3	wt%		0.2		D2974	10/02/15 09:40 / AH		DRYING OVEN 2_151001B	2	R109875
3050 EXTRACTABLE METALS											
Aluminum	4250	mg/kg-dry		5		SW6010B	09/24/15 00:52 / sld	09/22/15 08:06	ICP2-HE_150923C	96	30593
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 12:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	46	30593
Arsenic	75	mg/kg-dry		5		SW6020	09/25/15 12:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	46	30593
Barium	90	mg/kg-dry		5		SW6010B	09/24/15 00:52 / sld	09/22/15 08:06	ICP2-HE_150923C	96	30593
Beryllium	ND	mg/kg-dry		5		SW6010B	09/24/15 00:52 / sld	09/22/15 08:06	ICP2-HE_150923C	96	30593
Boron	ND	mg/kg-dry		5		SW6020	09/29/15 01:42 / dck	09/22/15 08:06	ICPMS204-B_150928A	24	30593
Cadmium	2.5	mg/kg-dry		0.2		SW6020	09/25/15 12:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	46	30593
Chromium	12	mg/kg-dry		5		SW6020	09/25/15 12:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	46	30593
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 12:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	46	30593
Copper	308	mg/kg-dry		5		SW6010B	09/24/15 00:52 / sld	09/22/15 08:06	ICP2-HE_150923C	96	30593
Iron	15400	mg/kg-dry		5		SW6010B	09/24/15 00:52 / sld	09/22/15 08:06	ICP2-HE_150923C	96	30593
Lead	127	mg/kg-dry		5		SW6020	09/25/15 12:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	46	30593
Manganese	546	mg/kg-dry		5		SW6010B	09/24/15 00:52 / sld	09/22/15 08:06	ICP2-HE_150923C	96	30593
Molybdenum	ND	mg/kg-dry		5		SW6020	09/25/15 12:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	46	30593
Nickel	5	mg/kg-dry		5		SW6010B	09/24/15 00:52 / sld	09/22/15 08:06	ICP2-HE_150923C	96	30593
Selenium	ND	mg/kg-dry		5		SW6020	09/25/15 12:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	46	30593
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 12:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	46	30593
Uranium	ND	mg/kg-dry		5		SW6020	09/25/15 12:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	46	30593
Vanadium	32	mg/kg-dry		1		SW6010B	09/24/15 00:52 / sld	09/22/15 08:06	ICP2-HE_150923C	96	30593
Zinc	840	mg/kg-dry		5		SW6010B	09/24/15 00:52 / sld	09/22/15 08:06	ICP2-HE_150923C	96	30593
METALS, TOTAL											
Mercury	0.33	mg/kg-dry		0.10		SW7471B	09/24/15 13:22 / rgk	09/21/15 09:00	HGCV201-H_150924B	25	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A Sediment Sieve 1-2mm
Lab ID: H15090206-054
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 15:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	25.5	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	45	R109505
PHYSICAL CHARACTERISTICS											
Moisture	16.1	wt%		0.2		D2974	10/02/15 09:40 / AH		DRYING OVEN 2_151001B	3	R109875
3050 EXTRACTABLE METALS											
Aluminum	4130	mg/kg-dry		5		SW6010B	09/24/15 01:48 / sld	09/22/15 08:06	ICP2-HE_150923C	111	30594
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 14:41 / dck	09/22/15 08:06	ICPMS204-B_150925B	85	30594
Arsenic	39	mg/kg-dry		5		SW6020	09/25/15 14:41 / dck	09/22/15 08:06	ICPMS204-B_150925B	85	30594
Barium	95	mg/kg-dry		5		SW6010B	09/24/15 01:48 / sld	09/22/15 08:06	ICP2-HE_150923C	111	30594
Beryllium	ND	mg/kg-dry		5		SW6010B	09/24/15 01:48 / sld	09/22/15 08:06	ICP2-HE_150923C	111	30594
Boron	ND	mg/kg-dry		5		SW6020	09/29/15 02:14 / dck	09/22/15 08:06	ICPMS204-B_150928A	34	30594
Cadmium	1.3	mg/kg-dry		0.2		SW6020	09/25/15 14:41 / dck	09/22/15 08:06	ICPMS204-B_150925B	85	30594
Chromium	12	mg/kg-dry		5		SW6020	09/25/15 14:41 / dck	09/22/15 08:06	ICPMS204-B_150925B	85	30594
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 14:41 / dck	09/22/15 08:06	ICPMS204-B_150925B	85	30594
Copper	199	mg/kg-dry		5		SW6010B	09/24/15 01:48 / sld	09/22/15 08:06	ICP2-HE_150923C	111	30594
Iron	11100	mg/kg-dry		5		SW6010B	09/24/15 01:48 / sld	09/22/15 08:06	ICP2-HE_150923C	111	30594
Lead	97	mg/kg-dry		5		SW6020	09/25/15 14:41 / dck	09/22/15 08:06	ICPMS204-B_150925B	85	30594
Manganese	867	mg/kg-dry		5		SW6010B	09/24/15 01:48 / sld	09/22/15 08:06	ICP2-HE_150923C	111	30594
Molybdenum	ND	mg/kg-dry		5		SW6020	09/25/15 14:41 / dck	09/22/15 08:06	ICPMS204-B_150925B	85	30594
Nickel	6	mg/kg-dry		5		SW6010B	09/24/15 01:48 / sld	09/22/15 08:06	ICP2-HE_150923C	111	30594
Selenium	ND	mg/kg-dry		5		SW6020	09/29/15 02:14 / dck	09/22/15 08:06	ICPMS204-B_150928A	34	30594
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 14:41 / dck	09/22/15 08:06	ICPMS204-B_150925B	85	30594
Uranium	ND	mg/kg-dry		5		SW6020	09/25/15 14:41 / dck	09/22/15 08:06	ICPMS204-B_150925B	85	30594
Vanadium	16	mg/kg-dry		1		SW6010B	09/24/15 01:48 / sld	09/22/15 08:06	ICP2-HE_150923C	111	30594
Zinc	630	mg/kg-dry		5		SW6010B	09/24/15 01:48 / sld	09/22/15 08:06	ICP2-HE_150923C	111	30594
METALS, TOTAL											
Mercury	0.24	mg/kg-dry		0.10		SW7471B	09/24/15 16:00 / rgk	09/21/15 09:00	HGCV201-H_150924B	135	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B Sediment Sieve <0.065mm
Lab ID: H15090206-055
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 13:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	3.0	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	46	R109505
PHYSICAL CHARACTERISTICS											
Moisture	76.0	wt%		0.2		D2974	10/02/15 09:40 / AH		DRYING OVEN 2_151001B	4	R109875
3050 EXTRACTABLE METALS											
Aluminum	18200	mg/kg-dry		10		SW6010B	09/23/15 23:34 / sld	09/22/15 08:06	ICP2-HE_150923C	75	30587
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 13:59 / dck	09/22/15 08:06	ICPMS204-B_150925B	69	30587
Arsenic	465	mg/kg-dry		5		SW6020	09/25/15 13:59 / dck	09/22/15 08:06	ICPMS204-B_150925B	69	30587
Barium	322	mg/kg-dry		5		SW6010B	09/23/15 23:34 / sld	09/22/15 08:06	ICP2-HE_150923C	75	30587
Beryllium	ND	mg/kg-dry		5		SW6010B	09/23/15 23:34 / sld	09/22/15 08:06	ICP2-HE_150923C	75	30587
Boron	10	mg/kg-dry		9		SW6020	09/29/15 01:22 / dck	09/22/15 08:06	ICPMS204-B_150928A	18	30587
Cadmium	8.1	mg/kg-dry		0.7		SW6020	09/25/15 13:59 / dck	09/22/15 08:06	ICPMS204-B_150925B	69	30587
Chromium	44	mg/kg-dry		5		SW6020	09/25/15 13:59 / dck	09/22/15 08:06	ICPMS204-B_150925B	69	30587
Cobalt	9	mg/kg-dry		5		SW6020	09/25/15 13:59 / dck	09/22/15 08:06	ICPMS204-B_150925B	69	30587
Copper	739	mg/kg-dry		5		SW6010B	09/23/15 23:34 / sld	09/22/15 08:06	ICP2-HE_150923C	75	30587
Iron	61800	mg/kg-dry		10		SW6010B	09/23/15 23:34 / sld	09/22/15 08:06	ICP2-HE_150923C	75	30587
Lead	322	mg/kg-dry		5		SW6020	09/25/15 13:59 / dck	09/22/15 08:06	ICPMS204-B_150925B	69	30587
Manganese	2610	mg/kg-dry		5		SW6010B	09/23/15 23:34 / sld	09/22/15 08:06	ICP2-HE_150923C	75	30587
Molybdenum	7	mg/kg-dry		5		SW6020	09/25/15 13:59 / dck	09/22/15 08:06	ICPMS204-B_150925B	69	30587
Nickel	25	mg/kg-dry		5		SW6010B	09/23/15 23:34 / sld	09/22/15 08:06	ICP2-HE_150923C	75	30587
Selenium	ND	mg/kg-dry		5		SW6020	09/25/15 13:59 / dck	09/22/15 08:06	ICPMS204-B_150925B	69	30587
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 13:59 / dck	09/22/15 08:06	ICPMS204-B_150925B	69	30587
Uranium	6	mg/kg-dry		5		SW6020	09/25/15 13:59 / dck	09/22/15 08:06	ICPMS204-B_150925B	69	30587
Vanadium	58	mg/kg-dry		3		SW6010B	09/23/15 23:34 / sld	09/22/15 08:06	ICP2-HE_150923C	75	30587
Zinc	3120	mg/kg-dry		5		SW6010B	09/23/15 23:34 / sld	09/22/15 08:06	ICP2-HE_150923C	75	30587
METALS, TOTAL											
Mercury	1.3	mg/kg-dry		0.10		SW7471B	09/24/15 16:10 / rgk	09/21/15 09:00	HGCV201-H_150924B	139	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B Sediment Sieve 0.065-1mm
Lab ID: H15090206-056
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 13:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	51.6	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	47	R109505
PHYSICAL CHARACTERISTICS											
Moisture	16.8	wt%		0.2		D2974	10/02/15 09:40 / AH		›RYING OVEN 2_151001B	5	R109875
3050 EXTRACTABLE METALS											
Aluminum	6670	mg/kg-dry		5		SW6010B	09/24/15 00:56 / sld	09/22/15 08:06	ICP2-HE_150923C	97	30593
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 12:47 / dck	09/22/15 08:06	ICPMS204-B_150925B	47	30593
Arsenic	74	mg/kg-dry		5		SW6020	09/25/15 12:47 / dck	09/22/15 08:06	ICPMS204-B_150925B	47	30593
Barium	105	mg/kg-dry		5		SW6010B	09/24/15 00:56 / sld	09/22/15 08:06	ICP2-HE_150923C	97	30593
Beryllium	ND	mg/kg-dry		5		SW6010B	09/24/15 00:56 / sld	09/22/15 08:06	ICP2-HE_150923C	97	30593
Boron	ND	mg/kg-dry		5		SW6020	09/29/15 01:45 / dck	09/22/15 08:06	ICPMS204-B_150928A	25	30593
Cadmium	3.6	mg/kg-dry		0.2		SW6020	09/25/15 12:47 / dck	09/22/15 08:06	ICPMS204-B_150925B	47	30593
Chromium	28	mg/kg-dry		5		SW6020	09/25/15 12:47 / dck	09/22/15 08:06	ICPMS204-B_150925B	47	30593
Cobalt	7	mg/kg-dry		5		SW6020	09/25/15 12:47 / dck	09/22/15 08:06	ICPMS204-B_150925B	47	30593
Copper	168	mg/kg-dry		5		SW6010B	09/24/15 00:56 / sld	09/22/15 08:06	ICP2-HE_150923C	97	30593
Iron	43800	mg/kg-dry		5		SW6010B	09/24/15 00:56 / sld	09/22/15 08:06	ICP2-HE_150923C	97	30593
Lead	49	mg/kg-dry		5		SW6020	09/25/15 12:47 / dck	09/22/15 08:06	ICPMS204-B_150925B	47	30593
Manganese	1600	mg/kg-dry		5		SW6010B	09/24/15 00:56 / sld	09/22/15 08:06	ICP2-HE_150923C	97	30593
Molybdenum	ND	mg/kg-dry		5		SW6020	09/25/15 12:47 / dck	09/22/15 08:06	ICPMS204-B_150925B	47	30593
Nickel	9	mg/kg-dry		5		SW6010B	09/24/15 00:56 / sld	09/22/15 08:06	ICP2-HE_150923C	97	30593
Selenium	ND	mg/kg-dry		5		SW6020	09/25/15 12:47 / dck	09/22/15 08:06	ICPMS204-B_150925B	47	30593
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 12:47 / dck	09/22/15 08:06	ICPMS204-B_150925B	47	30593
Uranium	ND	mg/kg-dry		5		SW6020	09/25/15 12:47 / dck	09/22/15 08:06	ICPMS204-B_150925B	47	30593
Vanadium	134	mg/kg-dry		1		SW6010B	09/24/15 00:56 / sld	09/22/15 08:06	ICP2-HE_150923C	97	30593
Zinc	1210	mg/kg-dry		5		SW6010B	09/24/15 00:56 / sld	09/22/15 08:06	ICP2-HE_150923C	97	30593
METALS, TOTAL											
Mercury	0.18	mg/kg-dry		0.10		SW7471B	09/24/15 16:13 / rgk	09/21/15 09:00	HGCV201-H_150924B	140	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B Sediment Sieve 1-2mm
Lab ID: H15090206-057
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 13:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	22.2	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	48	R109505
PHYSICAL CHARACTERISTICS											
Moisture	13.7	wt%		0.2		D2974	10/02/15 09:40 / AH		DRYING OVEN 2_151001B	6	R109875
3050 EXTRACTABLE METALS											
Aluminum	7340	mg/kg-dry		5		SW6010B	09/24/15 01:51 / sld	09/22/15 08:06	ICP2-HE_150923C	112	30594
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 14:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	86	30594
Arsenic	57	mg/kg-dry		5		SW6020	09/25/15 14:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	86	30594
Barium	77	mg/kg-dry		5		SW6010B	09/24/15 01:51 / sld	09/22/15 08:06	ICP2-HE_150923C	112	30594
Beryllium	ND	mg/kg-dry		5		SW6010B	09/24/15 01:51 / sld	09/22/15 08:06	ICP2-HE_150923C	112	30594
Boron	ND	mg/kg-dry		5		SW6020	09/29/15 02:17 / dck	09/22/15 08:06	ICPMS204-B_150928A	35	30594
Cadmium	0.3	mg/kg-dry		0.2		SW6020	09/25/15 14:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	86	30594
Chromium	11	mg/kg-dry		5		SW6020	09/25/15 14:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	86	30594
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 14:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	86	30594
Copper	71	mg/kg-dry		5		SW6010B	09/24/15 01:51 / sld	09/22/15 08:06	ICP2-HE_150923C	112	30594
Iron	14100	mg/kg-dry		5		SW6010B	09/24/15 01:51 / sld	09/22/15 08:06	ICP2-HE_150923C	112	30594
Lead	41	mg/kg-dry		5		SW6020	09/25/15 14:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	86	30594
Manganese	288	mg/kg-dry		5		SW6010B	09/24/15 01:51 / sld	09/22/15 08:06	ICP2-HE_150923C	112	30594
Molybdenum	ND	mg/kg-dry		5		SW6020	09/25/15 14:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	86	30594
Nickel	7	mg/kg-dry		5		SW6010B	09/24/15 01:51 / sld	09/22/15 08:06	ICP2-HE_150923C	112	30594
Selenium	ND	mg/kg-dry		5		SW6020	09/29/15 02:17 / dck	09/22/15 08:06	ICPMS204-B_150928A	35	30594
Silver	13	mg/kg-dry		5		SW6020	09/25/15 14:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	86	30594
Uranium	ND	mg/kg-dry		5		SW6020	09/25/15 14:44 / dck	09/22/15 08:06	ICPMS204-B_150925B	86	30594
Vanadium	21	mg/kg-dry		1		SW6010B	09/24/15 01:51 / sld	09/22/15 08:06	ICP2-HE_150923C	112	30594
Zinc	232	mg/kg-dry		5		SW6010B	09/24/15 01:51 / sld	09/22/15 08:06	ICP2-HE_150923C	112	30594
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/24/15 16:16 / rgk	09/21/15 09:00	HGCV201-H_150924B	141	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B Sediment Sieve <0.065mm
Lab ID: H15090206-058
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 11:15
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	3.5	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	49	R109505
PHYSICAL CHARACTERISTICS											
Moisture	52.8	wt%		0.2		D2974	10/02/15 09:40 / AH		DRYING OVEN 2_151001B	7	R109875
3050 EXTRACTABLE METALS											
Aluminum	29000	mg/kg-dry		7		SW6010B	09/23/15 23:37 / sld	09/22/15 08:06	ICP2-HE_150923C	76	30587
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 14:01 / dck	09/22/15 08:06	ICPMS204-B_150925B	70	30587
Arsenic	66	mg/kg-dry		5		SW6020	09/25/15 14:01 / dck	09/22/15 08:06	ICPMS204-B_150925B	70	30587
Barium	355	mg/kg-dry		5		SW6010B	09/23/15 23:37 / sld	09/22/15 08:06	ICP2-HE_150923C	76	30587
Beryllium	ND	mg/kg-dry		5		SW6010B	09/23/15 23:37 / sld	09/22/15 08:06	ICP2-HE_150923C	76	30587
Boron	8	mg/kg-dry		5		SW6020	09/29/15 01:26 / dck	09/22/15 08:06	ICPMS204-B_150928A	19	30587
Cadmium	7.6	mg/kg-dry		0.3		SW6020	09/25/15 14:01 / dck	09/22/15 08:06	ICPMS204-B_150925B	70	30587
Chromium	45	mg/kg-dry		5		SW6020	09/25/15 14:01 / dck	09/22/15 08:06	ICPMS204-B_150925B	70	30587
Cobalt	14	mg/kg-dry		5		SW6020	09/25/15 14:01 / dck	09/22/15 08:06	ICPMS204-B_150925B	70	30587
Copper	607	mg/kg-dry		5		SW6010B	09/23/15 23:37 / sld	09/22/15 08:06	ICP2-HE_150923C	76	30587
Iron	38600	mg/kg-dry		6		SW6010B	09/23/15 23:37 / sld	09/22/15 08:06	ICP2-HE_150923C	76	30587
Lead	346	mg/kg-dry		5		SW6020	09/25/15 14:01 / dck	09/22/15 08:06	ICPMS204-B_150925B	70	30587
Manganese	2570	mg/kg-dry		5		SW6010B	09/23/15 23:37 / sld	09/22/15 08:06	ICP2-HE_150923C	76	30587
Molybdenum	ND	mg/kg-dry		5		SW6020	09/25/15 14:01 / dck	09/22/15 08:06	ICPMS204-B_150925B	70	30587
Nickel	24	mg/kg-dry		5		SW6010B	09/23/15 23:37 / sld	09/22/15 08:06	ICP2-HE_150923C	76	30587
Selenium	ND	mg/kg-dry		5		SW6020	09/25/15 14:01 / dck	09/22/15 08:06	ICPMS204-B_150925B	70	30587
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 14:01 / dck	09/22/15 08:06	ICPMS204-B_150925B	70	30587
Uranium	ND	mg/kg-dry		5		SW6020	09/25/15 14:01 / dck	09/22/15 08:06	ICPMS204-B_150925B	70	30587
Vanadium	86	mg/kg-dry		2		SW6010B	09/23/15 23:37 / sld	09/22/15 08:06	ICP2-HE_150923C	76	30587
Zinc	1670	mg/kg-dry		5		SW6010B	09/23/15 23:37 / sld	09/22/15 08:06	ICP2-HE_150923C	76	30587
METALS, TOTAL											
Mercury	1.3	mg/kg-dry		0.20		SW7471B	09/24/15 16:18 / rgk	09/21/15 09:00	HGCV201-H_150924B	142	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B Sediment Sieve 0.065-1mm
Lab ID: H15090206-059
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 11:15
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	81.3	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	50	R109505
PHYSICAL CHARACTERISTICS											
Moisture	19.3	wt%		0.2		D2974	10/02/15 09:40 / AH		DRYING OVEN 2_151001B	8	R109875
3050 EXTRACTABLE METALS											
Aluminum	6130	mg/kg-dry		5		SW6010B	09/24/15 00:59 / sld	09/22/15 08:06	ICP2-HE_150923C	98	30593
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 12:50 / dck	09/22/15 08:06	ICPMS204-B_150925B	48	30593
Arsenic	26	mg/kg-dry		5		SW6020	09/25/15 12:50 / dck	09/22/15 08:06	ICPMS204-B_150925B	48	30593
Barium	104	mg/kg-dry		5		SW6010B	09/24/15 00:59 / sld	09/22/15 08:06	ICP2-HE_150923C	98	30593
Beryllium	ND	mg/kg-dry		5		SW6010B	09/24/15 00:59 / sld	09/22/15 08:06	ICP2-HE_150923C	98	30593
Boron	ND	mg/kg-dry		5		SW6020	09/29/15 01:48 / dck	09/22/15 08:06	ICPMS204-B_150928A	26	30593
Cadmium	1.1	mg/kg-dry		0.2		SW6020	09/25/15 12:50 / dck	09/22/15 08:06	ICPMS204-B_150925B	48	30593
Chromium	14	mg/kg-dry		5		SW6020	09/25/15 12:50 / dck	09/22/15 08:06	ICPMS204-B_150925B	48	30593
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 12:50 / dck	09/22/15 08:06	ICPMS204-B_150925B	48	30593
Copper	126	mg/kg-dry		5		SW6010B	09/24/15 00:59 / sld	09/22/15 08:06	ICP2-HE_150923C	98	30593
Iron	19400	mg/kg-dry		5		SW6010B	09/24/15 00:59 / sld	09/22/15 08:06	ICP2-HE_150923C	98	30593
Lead	61	mg/kg-dry		5		SW6020	09/25/15 12:50 / dck	09/22/15 08:06	ICPMS204-B_150925B	48	30593
Manganese	542	mg/kg-dry		5		SW6010B	09/24/15 00:59 / sld	09/22/15 08:06	ICP2-HE_150923C	98	30593
Molybdenum	ND	mg/kg-dry		5		SW6020	09/25/15 12:50 / dck	09/22/15 08:06	ICPMS204-B_150925B	48	30593
Nickel	6	mg/kg-dry		5		SW6010B	09/24/15 00:59 / sld	09/22/15 08:06	ICP2-HE_150923C	98	30593
Selenium	ND	mg/kg-dry		5		SW6020	09/25/15 12:50 / dck	09/22/15 08:06	ICPMS204-B_150925B	48	30593
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 12:50 / dck	09/22/15 08:06	ICPMS204-B_150925B	48	30593
Uranium	ND	mg/kg-dry		5		SW6020	09/25/15 12:50 / dck	09/22/15 08:06	ICPMS204-B_150925B	48	30593
Vanadium	51	mg/kg-dry		1		SW6010B	09/24/15 00:59 / sld	09/22/15 08:06	ICP2-HE_150923C	98	30593
Zinc	483	mg/kg-dry		5		SW6010B	09/24/15 00:59 / sld	09/22/15 08:06	ICP2-HE_150923C	98	30593
METALS, TOTAL											
Mercury	0.19	mg/kg-dry		0.10		SW7471B	09/24/15 16:21 / rgk	09/21/15 09:00	HGCV201-H_150924B	143	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B Sediment Sieve 1-2mm
Lab ID: H15090206-060
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 11:15
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	9.5	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	51	R109505
PHYSICAL CHARACTERISTICS											
Moisture	21.7	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	10	R109875
3050 EXTRACTABLE METALS											
Aluminum	5010	mg/kg-dry		5		SW6010B	09/24/15 02:03 / sld	09/22/15 08:06	ICP2-HE_150923C	115	30594
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 14:46 / dck	09/22/15 08:06	ICPMS204-B_150925B	87	30594
Arsenic	30	mg/kg-dry		5		SW6020	09/25/15 14:46 / dck	09/22/15 08:06	ICPMS204-B_150925B	87	30594
Barium	104	mg/kg-dry		5		SW6010B	09/24/15 02:03 / sld	09/22/15 08:06	ICP2-HE_150923C	115	30594
Beryllium	ND	mg/kg-dry		5		SW6010B	09/24/15 02:03 / sld	09/22/15 08:06	ICP2-HE_150923C	115	30594
Boron	ND	mg/kg-dry		5		SW6020	09/29/15 02:20 / dck	09/22/15 08:06	ICPMS204-B_150928A	36	30594
Cadmium	0.4	mg/kg-dry		0.2		SW6020	09/25/15 14:46 / dck	09/22/15 08:06	ICPMS204-B_150925B	87	30594
Chromium	8	mg/kg-dry		5		SW6020	09/25/15 14:46 / dck	09/22/15 08:06	ICPMS204-B_150925B	87	30594
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 14:46 / dck	09/22/15 08:06	ICPMS204-B_150925B	87	30594
Copper	110	mg/kg-dry		5		SW6010B	09/24/15 02:03 / sld	09/22/15 08:06	ICP2-HE_150923C	115	30594
Iron	11500	mg/kg-dry		5		SW6010B	09/24/15 02:03 / sld	09/22/15 08:06	ICP2-HE_150923C	115	30594
Lead	41	mg/kg-dry		5		SW6020	09/25/15 14:46 / dck	09/22/15 08:06	ICPMS204-B_150925B	87	30594
Manganese	405	mg/kg-dry		5		SW6010B	09/24/15 02:03 / sld	09/22/15 08:06	ICP2-HE_150923C	115	30594
Molybdenum	ND	mg/kg-dry		5		SW6020	09/25/15 14:46 / dck	09/22/15 08:06	ICPMS204-B_150925B	87	30594
Nickel	ND	mg/kg-dry		5		SW6010B	09/24/15 02:03 / sld	09/22/15 08:06	ICP2-HE_150923C	115	30594
Selenium	ND	mg/kg-dry		5		SW6020	09/29/15 02:20 / dck	09/22/15 08:06	ICPMS204-B_150928A	36	30594
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 14:46 / dck	09/22/15 08:06	ICPMS204-B_150925B	87	30594
Uranium	ND	mg/kg-dry		5		SW6020	09/25/15 14:46 / dck	09/22/15 08:06	ICPMS204-B_150925B	87	30594
Vanadium	20	mg/kg-dry		1		SW6010B	09/24/15 02:03 / sld	09/22/15 08:06	ICP2-HE_150923C	115	30594
Zinc	256	mg/kg-dry		5		SW6010B	09/24/15 02:03 / sld	09/22/15 08:06	ICP2-HE_150923C	115	30594
METALS, TOTAL											
Mercury	0.27	mg/kg-dry		0.10		SW7471B	09/24/15 16:23 / rgk	09/21/15 09:00	HGCV201-H_150924B	144	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D Sediment Sieve <0.065mm
Lab ID: H15090206-061
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 10:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	4.1	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	52	R109505
PHYSICAL CHARACTERISTICS											
Moisture	57.0	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	11	R109875
3050 EXTRACTABLE METALS											
Aluminum	24900	mg/kg-dry		7		SW6010B	09/23/15 23:41 / sld	09/22/15 08:06	ICP2-HE_150923C	77	30587
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 14:04 / dck	09/22/15 08:06	ICPMS204-B_150925B	71	30587
Arsenic	76	mg/kg-dry		5		SW6020	09/25/15 14:04 / dck	09/22/15 08:06	ICPMS204-B_150925B	71	30587
Barium	340	mg/kg-dry		5		SW6010B	09/23/15 23:41 / sld	09/22/15 08:06	ICP2-HE_150923C	77	30587
Beryllium	ND	mg/kg-dry		5		SW6010B	09/23/15 23:41 / sld	09/22/15 08:06	ICP2-HE_150923C	77	30587
Boron	7	mg/kg-dry		5		SW6020	09/29/15 01:29 / dck	09/22/15 08:06	ICPMS204-B_150928A	20	30587
Cadmium	12.0	mg/kg-dry		0.4		SW6020	09/25/15 14:04 / dck	09/22/15 08:06	ICPMS204-B_150925B	71	30587
Chromium	34	mg/kg-dry		5		SW6020	09/25/15 14:04 / dck	09/22/15 08:06	ICPMS204-B_150925B	71	30587
Cobalt	13	mg/kg-dry		5		SW6020	09/25/15 14:04 / dck	09/22/15 08:06	ICPMS204-B_150925B	71	30587
Copper	724	mg/kg-dry		5		SW6010B	09/23/15 23:41 / sld	09/22/15 08:06	ICP2-HE_150923C	77	30587
Iron	36300	mg/kg-dry		7		SW6010B	09/23/15 23:41 / sld	09/22/15 08:06	ICP2-HE_150923C	77	30587
Lead	268	mg/kg-dry		5		SW6020	09/25/15 14:04 / dck	09/22/15 08:06	ICPMS204-B_150925B	71	30587
Manganese	2110	mg/kg-dry		5		SW6010B	09/23/15 23:41 / sld	09/22/15 08:06	ICP2-HE_150923C	77	30587
Molybdenum	ND	mg/kg-dry		5		SW6020	09/25/15 14:04 / dck	09/22/15 08:06	ICPMS204-B_150925B	71	30587
Nickel	19	mg/kg-dry		5		SW6010B	09/23/15 23:41 / sld	09/22/15 08:06	ICP2-HE_150923C	77	30587
Selenium	ND	mg/kg-dry		5		SW6020	09/25/15 14:04 / dck	09/22/15 08:06	ICPMS204-B_150925B	71	30587
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 14:04 / dck	09/22/15 08:06	ICPMS204-B_150925B	71	30587
Uranium	ND	mg/kg-dry		5		SW6020	09/25/15 14:04 / dck	09/22/15 08:06	ICPMS204-B_150925B	71	30587
Vanadium	80	mg/kg-dry		2		SW6010B	09/23/15 23:41 / sld	09/22/15 08:06	ICP2-HE_150923C	77	30587
Zinc	2440	mg/kg-dry		5		SW6010B	09/23/15 23:41 / sld	09/22/15 08:06	ICP2-HE_150923C	77	30587
METALS, TOTAL											
Mercury	1.4	mg/kg-dry		0.23		SW7471B	09/24/15 16:26 / rgk	09/21/15 09:00	HGCV201-H_150924B	145	30591

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D Sediment Sieve 0.065-1mm
Lab ID: H15090206-062
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 10:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	81.2	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	53	R109505
PHYSICAL CHARACTERISTICS											
Moisture	22.8	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	12	R109875
3050 EXTRACTABLE METALS											
Aluminum	4940	mg/kg-dry		5		SW6010B	09/24/15 01:03 / sld	09/22/15 08:06	ICP2-HE_150923C	99	30593
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 12:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	49	30593
Arsenic	18	mg/kg-dry		5		SW6020	09/25/15 12:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	49	30593
Barium	102	mg/kg-dry		5		SW6010B	09/24/15 01:03 / sld	09/22/15 08:06	ICP2-HE_150923C	99	30593
Beryllium	ND	mg/kg-dry		5		SW6010B	09/24/15 01:03 / sld	09/22/15 08:06	ICP2-HE_150923C	99	30593
Boron	ND	mg/kg-dry		5		SW6020	09/29/15 01:51 / dck	09/22/15 08:06	ICPMS204-B_150928A	27	30593
Cadmium	0.9	mg/kg-dry		0.2		SW6020	09/25/15 12:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	49	30593
Chromium	14	mg/kg-dry		5		SW6020	09/25/15 12:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	49	30593
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 12:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	49	30593
Copper	76	mg/kg-dry		5		SW6010B	09/24/15 01:03 / sld	09/22/15 08:06	ICP2-HE_150923C	99	30593
Iron	19700	mg/kg-dry		5		SW6010B	09/24/15 01:03 / sld	09/22/15 08:06	ICP2-HE_150923C	99	30593
Lead	35	mg/kg-dry		5		SW6020	09/25/15 12:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	49	30593
Manganese	358	mg/kg-dry		5		SW6010B	09/24/15 01:03 / sld	09/22/15 08:06	ICP2-HE_150923C	99	30593
Molybdenum	ND	mg/kg-dry		5		SW6020	09/25/15 12:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	49	30593
Nickel	6	mg/kg-dry		5		SW6010B	09/24/15 01:03 / sld	09/22/15 08:06	ICP2-HE_150923C	99	30593
Selenium	ND	mg/kg-dry		5		SW6020	09/25/15 12:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	49	30593
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 12:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	49	30593
Uranium	ND	mg/kg-dry		5		SW6020	09/25/15 12:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	49	30593
Vanadium	56	mg/kg-dry		1		SW6010B	09/24/15 01:03 / sld	09/22/15 08:06	ICP2-HE_150923C	99	30593
Zinc	357	mg/kg-dry		5		SW6010B	09/24/15 01:03 / sld	09/22/15 08:06	ICP2-HE_150923C	99	30593
METALS, TOTAL											
Mercury	0.13	mg/kg-dry		0.10		SW7471B	09/24/15 11:34 / rgk	09/22/15 07:59	HGCV201-H_150924A	23	30592

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D Sediment Sieve 1-2mm
Lab ID: H15090206-063
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 10:00
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	9.3	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	54	R109505
PHYSICAL CHARACTERISTICS											
Moisture	25.2	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	13	R109875
3050 EXTRACTABLE METALS											
Aluminum	3940	mg/kg-dry		5		SW6010B	09/24/15 02:06 / sld	09/22/15 08:06	ICP2-HE_150923C	116	30594
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 14:49 / dck	09/22/15 08:06	ICPMS204-B_150925B	88	30594
Arsenic	16	mg/kg-dry		5		SW6020	09/25/15 14:49 / dck	09/22/15 08:06	ICPMS204-B_150925B	88	30594
Barium	88	mg/kg-dry		5		SW6010B	09/24/15 02:06 / sld	09/22/15 08:06	ICP2-HE_150923C	116	30594
Beryllium	ND	mg/kg-dry		5		SW6010B	09/24/15 02:06 / sld	09/22/15 08:06	ICP2-HE_150923C	116	30594
Boron	ND	mg/kg-dry		5		SW6020	09/29/15 02:24 / dck	09/22/15 08:06	ICPMS204-B_150928A	37	30594
Cadmium	0.4	mg/kg-dry		0.2		SW6020	09/25/15 14:49 / dck	09/22/15 08:06	ICPMS204-B_150925B	88	30594
Chromium	6	mg/kg-dry		5		SW6020	09/25/15 14:49 / dck	09/22/15 08:06	ICPMS204-B_150925B	88	30594
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 14:49 / dck	09/22/15 08:06	ICPMS204-B_150925B	88	30594
Copper	80	mg/kg-dry		5		SW6010B	09/24/15 02:06 / sld	09/22/15 08:06	ICP2-HE_150923C	116	30594
Iron	7990	mg/kg-dry		5		SW6010B	09/24/15 02:06 / sld	09/22/15 08:06	ICP2-HE_150923C	116	30594
Lead	22	mg/kg-dry		5		SW6020	09/25/15 14:49 / dck	09/22/15 08:06	ICPMS204-B_150925B	88	30594
Manganese	446	mg/kg-dry		5		SW6010B	09/24/15 02:06 / sld	09/22/15 08:06	ICP2-HE_150923C	116	30594
Molybdenum	ND	mg/kg-dry		5		SW6020	09/25/15 14:49 / dck	09/22/15 08:06	ICPMS204-B_150925B	88	30594
Nickel	ND	mg/kg-dry		5		SW6010B	09/24/15 02:06 / sld	09/22/15 08:06	ICP2-HE_150923C	116	30594
Selenium	ND	mg/kg-dry		5		SW6020	09/29/15 02:24 / dck	09/22/15 08:06	ICPMS204-B_150928A	37	30594
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 14:49 / dck	09/22/15 08:06	ICPMS204-B_150925B	88	30594
Uranium	ND	mg/kg-dry		5		SW6020	09/25/15 14:49 / dck	09/22/15 08:06	ICPMS204-B_150925B	88	30594
Vanadium	15	mg/kg-dry		1		SW6010B	09/24/15 02:06 / sld	09/22/15 08:06	ICP2-HE_150923C	116	30594
Zinc	183	mg/kg-dry		5		SW6010B	09/24/15 02:06 / sld	09/22/15 08:06	ICP2-HE_150923C	116	30594
METALS, TOTAL											
Mercury	0.17	mg/kg-dry		0.10		SW7471B	09/24/15 11:37 / rgk	09/22/15 07:59	HGCV201-H_150924A	24	30592

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19 Sediment Sieve <0.065mm
Lab ID: H15090206-064
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 08:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	2.0	wt% Passed		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	55	R109505
PHYSICAL CHARACTERISTICS											
Moisture	61.9	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	14	R109875
3050 EXTRACTABLE METALS											
Aluminum	21700	mg/kg-dry		9		SW6010B	09/23/15 23:45 / sld	09/22/15 08:06	ICP2-HE_150923C	78	30587
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 14:07 / dck	09/22/15 08:06	ICPMS204-B_150925B	72	30587
Arsenic	79	mg/kg-dry		5		SW6020	09/25/15 14:07 / dck	09/22/15 08:06	ICPMS204-B_150925B	72	30587
Barium	330	mg/kg-dry		5		SW6010B	09/23/15 23:45 / sld	09/22/15 08:06	ICP2-HE_150923C	78	30587
Beryllium	ND	mg/kg-dry		5		SW6010B	09/23/15 23:45 / sld	09/22/15 08:06	ICP2-HE_150923C	78	30587
Boron	7	mg/kg-dry		6		SW6020	09/29/15 01:32 / dck	09/22/15 08:06	ICPMS204-B_150928A	21	30587
Cadmium	13.2	mg/kg-dry		0.4		SW6020	09/25/15 14:07 / dck	09/22/15 08:06	ICPMS204-B_150925B	72	30587
Chromium	47	mg/kg-dry		5		SW6020	09/25/15 14:07 / dck	09/22/15 08:06	ICPMS204-B_150925B	72	30587
Cobalt	18	mg/kg-dry		5		SW6020	09/25/15 14:07 / dck	09/22/15 08:06	ICPMS204-B_150925B	72	30587
Copper	674	mg/kg-dry		5		SW6010B	09/23/15 23:45 / sld	09/22/15 08:06	ICP2-HE_150923C	78	30587
Iron	37800	mg/kg-dry		8		SW6010B	09/23/15 23:45 / sld	09/22/15 08:06	ICP2-HE_150923C	78	30587
Lead	274	mg/kg-dry		5		SW6020	09/25/15 14:07 / dck	09/22/15 08:06	ICPMS204-B_150925B	72	30587
Manganese	2930	mg/kg-dry		5		SW6010B	09/23/15 23:45 / sld	09/22/15 08:06	ICP2-HE_150923C	78	30587
Molybdenum	ND	mg/kg-dry		5		SW6020	09/25/15 14:07 / dck	09/22/15 08:06	ICPMS204-B_150925B	72	30587
Nickel	27	mg/kg-dry		5		SW6010B	09/23/15 23:45 / sld	09/22/15 08:06	ICP2-HE_150923C	78	30587
Selenium	ND	mg/kg-dry		5		SW6020	09/25/15 14:07 / dck	09/22/15 08:06	ICPMS204-B_150925B	72	30587
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 14:07 / dck	09/22/15 08:06	ICPMS204-B_150925B	72	30587
Uranium	ND	mg/kg-dry		5		SW6020	09/25/15 14:07 / dck	09/22/15 08:06	ICPMS204-B_150925B	72	30587
Vanadium	89	mg/kg-dry		2		SW6010B	09/23/15 23:45 / sld	09/22/15 08:06	ICP2-HE_150923C	78	30587
Zinc	2780	mg/kg-dry		5		SW6010B	09/23/15 23:45 / sld	09/22/15 08:06	ICP2-HE_150923C	78	30587
METALS, TOTAL											
Mercury	1.1	mg/kg-dry		0.10		SW7471B	09/24/15 11:40 / rgk	09/22/15 07:59	HGCV201-H_150924A	25	30592

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19 Sediment Sieve 0.065-1mm
Lab ID: H15090206-065
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 08:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	49.4	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	56	R109505
PHYSICAL CHARACTERISTICS											
Moisture	19.4	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	15	R109875
3050 EXTRACTABLE METALS											
Aluminum	2680	mg/kg-dry		5		SW6010B	09/24/15 01:07 / sld	09/22/15 08:06	ICP2-HE_150923C	100	30593
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 12:55 / dck	09/22/15 08:06	ICPMS204-B_150925B	50	30593
Arsenic	15	mg/kg-dry		5		SW6020	09/25/15 12:55 / dck	09/22/15 08:06	ICPMS204-B_150925B	50	30593
Barium	58	mg/kg-dry		5		SW6010B	09/24/15 01:07 / sld	09/22/15 08:06	ICP2-HE_150923C	100	30593
Beryllium	ND	mg/kg-dry		5		SW6010B	09/24/15 01:07 / sld	09/22/15 08:06	ICP2-HE_150923C	100	30593
Boron	ND	mg/kg-dry		5		SW6020	09/29/15 01:55 / dck	09/22/15 08:06	ICPMS204-B_150928A	28	30593
Cadmium	0.6	mg/kg-dry		0.2		SW6020	09/25/15 12:55 / dck	09/22/15 08:06	ICPMS204-B_150925B	50	30593
Chromium	5	mg/kg-dry		5		SW6020	09/25/15 12:55 / dck	09/22/15 08:06	ICPMS204-B_150925B	50	30593
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 12:55 / dck	09/22/15 08:06	ICPMS204-B_150925B	50	30593
Copper	56	mg/kg-dry		5		SW6010B	09/24/15 01:07 / sld	09/22/15 08:06	ICP2-HE_150923C	100	30593
Iron	5680	mg/kg-dry		5		SW6010B	09/24/15 01:07 / sld	09/22/15 08:06	ICP2-HE_150923C	100	30593
Lead	30	mg/kg-dry		5		SW6020	09/25/15 12:55 / dck	09/22/15 08:06	ICPMS204-B_150925B	50	30593
Manganese	191	mg/kg-dry		5		SW6010B	09/24/15 01:07 / sld	09/22/15 08:06	ICP2-HE_150923C	100	30593
Molybdenum	ND	mg/kg-dry		5		SW6020	09/25/15 12:55 / dck	09/22/15 08:06	ICPMS204-B_150925B	50	30593
Nickel	ND	mg/kg-dry		5		SW6010B	09/24/15 01:07 / sld	09/22/15 08:06	ICP2-HE_150923C	100	30593
Selenium	ND	mg/kg-dry		5		SW6020	09/25/15 12:55 / dck	09/22/15 08:06	ICPMS204-B_150925B	50	30593
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 12:55 / dck	09/22/15 08:06	ICPMS204-B_150925B	50	30593
Uranium	ND	mg/kg-dry		5		SW6020	09/25/15 12:55 / dck	09/22/15 08:06	ICPMS204-B_150925B	50	30593
Vanadium	12	mg/kg-dry		1		SW6010B	09/24/15 01:07 / sld	09/22/15 08:06	ICP2-HE_150923C	100	30593
Zinc	253	mg/kg-dry		5		SW6010B	09/24/15 01:07 / sld	09/22/15 08:06	ICP2-HE_150923C	100	30593
METALS, TOTAL											
Mercury	0.11	mg/kg-dry		0.10		SW7471B	09/24/15 11:42 / rgk	09/22/15 07:59	HGCV201-H_150924A	26	30592

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19 Sediment Sieve 1-2mm
Lab ID: H15090206-066
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 09/08/15 08:30
DateReceived: 09/10/15
Report Date: 10/06/15
Revised Date: 10/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	30.5	wt% retained		0.1		ASA15-2	09/20/15 08:00 / mcb		MISC SOILS_150920B	57	R109505
PHYSICAL CHARACTERISTICS											
Moisture	21.1	wt%		0.2		D2974	10/02/15 09:40 / AH		RYING OVEN 2_151001B	16	R109875
3050 EXTRACTABLE METALS											
Aluminum	2920	mg/kg-dry		5		SW6010B	09/24/15 02:10 / sld	09/22/15 08:06	ICP2-HE_150923C	117	30594
Antimony	ND	mg/kg-dry		5		SW6020	09/25/15 14:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	89	30594
Arsenic	8	mg/kg-dry		5		SW6020	09/25/15 14:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	89	30594
Barium	55	mg/kg-dry		5		SW6010B	09/24/15 02:10 / sld	09/22/15 08:06	ICP2-HE_150923C	117	30594
Beryllium	ND	mg/kg-dry		5		SW6010B	09/24/15 02:10 / sld	09/22/15 08:06	ICP2-HE_150923C	117	30594
Boron	ND	mg/kg-dry		5		SW6020	09/29/15 02:27 / dck	09/22/15 08:06	ICPMS204-B_150928A	38	30594
Cadmium	0.2	mg/kg-dry		0.2		SW6020	09/25/15 14:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	89	30594
Chromium	6	mg/kg-dry		5		SW6020	09/25/15 14:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	89	30594
Cobalt	ND	mg/kg-dry		5		SW6020	09/25/15 14:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	89	30594
Copper	48	mg/kg-dry		5		SW6010B	09/24/15 02:10 / sld	09/22/15 08:06	ICP2-HE_150923C	117	30594
Iron	5650	mg/kg-dry		5		SW6010B	09/24/15 02:10 / sld	09/22/15 08:06	ICP2-HE_150923C	117	30594
Lead	16	mg/kg-dry		5		SW6020	09/25/15 14:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	89	30594
Manganese	218	mg/kg-dry		5		SW6010B	09/24/15 02:10 / sld	09/22/15 08:06	ICP2-HE_150923C	117	30594
Molybdenum	ND	mg/kg-dry		5		SW6020	09/25/15 14:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	89	30594
Nickel	ND	mg/kg-dry		5		SW6010B	09/24/15 02:10 / sld	09/22/15 08:06	ICP2-HE_150923C	117	30594
Selenium	ND	mg/kg-dry		5		SW6020	09/29/15 02:27 / dck	09/22/15 08:06	ICPMS204-B_150928A	38	30594
Silver	ND	mg/kg-dry		5		SW6020	09/25/15 14:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	89	30594
Uranium	ND	mg/kg-dry		5		SW6020	09/25/15 14:52 / dck	09/22/15 08:06	ICPMS204-B_150925B	89	30594
Vanadium	12	mg/kg-dry		1		SW6010B	09/24/15 02:10 / sld	09/22/15 08:06	ICP2-HE_150923C	117	30594
Zinc	107	mg/kg-dry		5		SW6010B	09/24/15 02:10 / sld	09/22/15 08:06	ICP2-HE_150923C	117	30594
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	09/24/15 11:45 / rgk	09/22/15 07:59	HGCV201-H_150924A	27	30592

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150911A-SLDS-VSS-W

Date: *23-Oct-15*

Run ID :Run Order: **MISC WC_150911A: 1** SampType: **Method Blank** Lab ID: **MBLK1_1508131** Method: **A2540 E**

Analysis Date: **09/11/15 09:12** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	ND	1									

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **MISC WC_150911A: 3** SampType: **Sample Duplicate** Lab ID: **H15090199-001ADUP** Method: **A2540 E**

Analysis Date: **09/11/15 09:13** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	2	10		0				3.2		30	

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **MISC WC_150911A: 14** SampType: **Sample Duplicate** Lab ID: **H15090206-008ADUP** Method: **A2540 E**

Analysis Date: **09/11/15 09:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	5	10		0				4.6		30	

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **MISC WC_150911A: 24** SampType: **Method Blank** Lab ID: **MBLK2_150911A** Method: **A2540 E**

Analysis Date: **09/11/15 09:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	ND	1									

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150911A-SLDS-VSS-W

Date: *23-Oct-15*

Run ID :Run Order: **MISC WC_150911A: 26** SampType: **Sample Duplicate** Lab ID: **H15090206-018ADUP** Method: **A2540 E**

Analysis Date: **09/11/15 09:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	3	10		0				3.4		30	

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150917wa

Date: *23-Oct-15*

Run ID :Run Order: **HGCV202-H_150917A: 17** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **09/17/15 13:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000214	0.00010	0.0002	0	107	90	110				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-004B**

Run ID :Run Order: **HGCV202-H_150917A: 18** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1** Method: **E245.1**

Analysis Date: **09/17/15 13:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000203	0.00010	0.0002	0	101	95	105				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-004B**

Run ID :Run Order: **HGCV202-H_150917A: 57** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E245.1**

Analysis Date: **09/17/15 18:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002	0	102	90	110				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-004B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150924sa-B

Date: *23-Oct-15*

Run ID :Run Order: **HGCV201-H_150924B: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **09/24/15 12:34** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00095	0.50	0.001	0	95	90	110				

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A**

Run ID :Run Order: **HGCV201-H_150924B: 8** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **09/24/15 12:37** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	99	90	110				

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A**

Run ID :Run Order: **HGCV201-H_150924B: 26** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **09/24/15 13:24** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0026	0.50	0.0025	0	103	90	110				

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A**

Run ID :Run Order: **HGCV201-H_150924B: 40** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **09/24/15 14:04** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	102	90	110				

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150924sa-B

Date: *23-Oct-15*

Run ID :Run Order: **HGCV201-H_150924B: 52** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **09/24/15 14:35** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0026	0.50	0.0025	0	**104**	90	110				

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A**

Run ID :Run Order: **HGCV201-H_150924B: 66** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **09/24/15 15:12** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0026	0.50	0.0025	0	**102**	90	110				

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150924sa

Date: *23-Oct-15*

Run ID :Run Order: **HGCV201-H_150924A: 11** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **09/24/15 10:51** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00093	0.50	0.001	0	**93**	90	110				

Associated samples: **H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Run ID :Run Order: **HGCV201-H_150924A: 12** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **09/24/15 10:53** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	**101**	90	110				

Associated samples: **H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150928sa

Date: *23-Oct-15*

Run ID :Run Order: **HGCV201-H_150928A: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **09/28/15 16:19** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00092	0.50	0.001	0	92	90	110				

Associated samples: **H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A**

Run ID :Run Order: **HGCV201-H_150928A: 10** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **09/28/15 16:27** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0023	0.50	0.0025	0	90	90	110				

Associated samples: **H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A**

Run ID :Run Order: **HGCV201-H_150928A: 28** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **09/28/15 17:44** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0026	0.50	0.0025	0	105	90	110				

Associated samples: **H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A**

Run ID :Run Order: **HGCV201-H_150928A: 43** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **09/28/15 18:24** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0026	0.50	0.0025	0	104	90	110				

Associated samples: **H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150928wa

Date: *23-Oct-15*

Run ID :Run Order: **HGCV202-H_150928A: 55** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **09/28/15 16:40** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002	0	101	90	110				

Associated samples: **H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B**

Run ID :Run Order: **HGCV202-H_150928A: 56** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1** Method: **E245.1**

Analysis Date: **09/28/15 16:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00019	0.00010	0.0002	0	97	95	105				

Associated samples: **H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B**

Run ID :Run Order: **HGCV202-H_150928A: 69** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E245.1**

Analysis Date: **09/28/15 17:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002	0	101	90	110				

Associated samples: **H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B**

Run ID :Run Order: **HGCV202-H_150928A: 88** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E245.1**

Analysis Date: **09/28/15 18:43** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000189	0.00010	0.0002	0	95	90	110				

Associated samples: **H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B**

Run ID :Run Order: **HGCV202-H_150928A: 93** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E245.1**

Analysis Date: **09/28/15 19:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00019	0.00010	0.0002	0	96	90	110				

Associated samples: **H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150928wa

Date: *23-Oct-15*

Run ID :Run Order: **HGCV202-H_150928A: 104** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E245.1**

Analysis Date: **09/28/15 19:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000197	0.00010	0.0002	0	99	90	110				

Associated samples: **H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150929wa

Date: *23-Oct-15*

Run ID :Run Order: **HGCV202-H_150929A: 8** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **09/29/15 11:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002	0	101	90	110				

Associated samples: **H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-018C**

Run ID :Run Order: **HGCV202-H_150929A: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1** Method: **E245.1**

Analysis Date: **09/29/15 11:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002	0	98	95	105				

Associated samples: **H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-018C**

Run ID :Run Order: **HGCV202-H_150929A: 18** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E245.1**

Analysis Date: **09/29/15 13:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00021	0.00010	0.0002	0	106	90	110				

Associated samples: **H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-018C**

Run ID :Run Order: **HGCV202-H_150929A: 39** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **09/29/15 15:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000205	0.00010	0.0002	0	103	90	110				

Associated samples: **H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-018C**

Run ID :Run Order: **HGCV202-H_150929A: 40** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1** Method: **E245.1**

Analysis Date: **09/29/15 15:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000198	0.00010	0.0002	0	99	95	105				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150929wa

Date: *23-Oct-15*

Run ID :Run Order: **HGCV202-H_150929A: 40** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1** Method: **E245.1**

Analysis Date: **09/29/15 15:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-018C**

Run ID :Run Order: **HGCV202-H_150929A: 52** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E245.1**

Analysis Date: **09/29/15 16:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000198	0.00010	0.0002	0	99	90	110				

Associated samples: **H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-018C**

Run ID :Run Order: **HGCV202-H_150929A: 64** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E245.1**

Analysis Date: **09/29/15 16:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000197	0.00010	0.0002	0	98	90	110				

Associated samples: **H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150930sa

Date: *23-Oct-15*

Run ID :Run Order: **HGCV201-H_150930A: 59** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **09/30/15 14:48** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00093	0.50	0.001	0	**93**	90	110				

Associated samples: **H15090206-026A, H15090206-034A**

Run ID :Run Order: **HGCV201-H_150930A: 60** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **09/30/15 14:51** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	**98**	90	110				

Associated samples: **H15090206-026A, H15090206-034A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 150930wa

Date: *23-Oct-15*

Run ID :Run Order: **HGCV202-H_150930A: 8** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **09/30/15 11:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002	0	102	90	110				

Associated samples: **H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B**

Run ID :Run Order: **HGCV202-H_150930A: 11** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1** Method: **E245.1**

Analysis Date: **09/30/15 12:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002	0	102	95	105				

Associated samples: **H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B**

Run ID :Run Order: **HGCV202-H_150930A: 45** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **09/30/15 14:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000204	0.00010	0.0002	0	102	90	110				

Associated samples: **H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 151001wa

Date: *23-Oct-15*

Run ID :Run Order: **HGCV202-H_151001A: 19** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **10/01/15 14:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00019	0.00010	0.0002	0	**97**	90	110				

Associated samples: **H15090206-001C, H15090206-003C**

Run ID :Run Order: **HGCV202-H_151001A: 20** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1** Method: **E245.1**

Analysis Date: **10/01/15 14:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00019	0.00010	0.0002	0	**97**	95	105				

Associated samples: **H15090206-001C, H15090206-003C**

Run ID :Run Order: **HGCV202-H_151001A: 24** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E245.1**

Analysis Date: **10/01/15 15:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.0002	0	**100**	90	110				

Associated samples: **H15090206-001C, H15090206-003C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 151005sa

Date: *23-Oct-15*

Run ID :Run Order: **HGCV201-H_151005A: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **10/05/15 13:49** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0010	0.50	0.001	0	**104**	90	110				

Associated samples: **H15090206-025A**

Run ID :Run Order: **HGCV201-H_151005A: 8** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **10/05/15 13:51** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0024	0.50	0.0025	0	**97**	90	110				

Associated samples: **H15090206-025A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30478

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 72** SampType: **Method Blank** Lab ID: **MB-30478** Method: **E200.8**

Analysis Date: **09/12/15 01:29** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	0.00010	6E-05									
Arsenic	0.0001	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	0.005	0.002									
Cadmium	ND	1E-05									
Calcium	ND	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	ND	0.0002									
Iron	ND	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	6E-05	4E-05									
Nickel	7E-05	3E-05									
Potassium	ND	0.02									
Selenium	ND	0.0004									
Silver	0.0001	5E-05									
Sodium	0.02	0.004									
Uranium	ND	5E-05									
Vanadium	0.0007	0.0001									
Zinc	0.002	0.002									

Associated samples: **H15090206-001C, H15090206-002C, H15090206-003C, H15090206-004C, H15090206-005C, H15090206-006C, H15090206-007C, H15090206-008C, H15090206-009C, H15090206-010C, H15090206-011C, H15090206-012C, H15090206-013C, H15090206-014C**

Run ID :Run Order: **ICPMS204-B_150911A: 73** SampType: **Laboratory Control Sample** Lab ID: **LCS-30478** Method: **E200.8**

Analysis Date: **09/12/15 01:32** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.35	0.030	2.5	0	**94**	85	115				
Antimony	0.533	0.0010	0.5	0.0000957	**107**	85	115				
Arsenic	0.532	0.0010	0.5	0.0001237	**106**	85	115				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30478

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 73** SampType: **Laboratory Control Sample** Lab ID: **LCS-30478** Method: **E200.8**

Analysis Date: **09/12/15 01:32** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	0.518	0.050	0.5	0	104	85	115				
Beryllium	0.252	0.0010	0.25	0	101	85	115				
Boron	0.504	0.050	0.5	0.004642	100	85	115				
Cadmium	0.262	0.0010	0.25	0	105	85	115				
Calcium	26.2	1.0	25	0	105	85	115				
Chromium	0.509	0.0050	0.5	0	102	85	115				
Cobalt	0.508	0.0050	0.5	0	102	85	115				
Copper	0.502	0.0050	0.5	0	100	85	115				
Iron	2.56	0.020	2.5	0	102	85	115				
Lead	0.510	0.0010	0.5	0	102	85	115				
Magnesium	26.0	1.0	25	0	104	85	115				
Manganese	2.54	0.0010	2.5	0	102	85	115				
Molybdenum	0.527	0.0010	0.5	0.0000567	105	85	115				
Nickel	0.504	0.0050	0.5	0.0000663	101	85	115				
Potassium	26.0	1.0	25	0	104	85	115				
Selenium	0.535	0.0010	0.5	0	107	85	115				
Silver	0.0505	0.0010	0.05	0.0001194	101	85	115				
Sodium	26.3	1.0	25	0.01681	105	85	115				
Uranium	0.496	0.00030	0.5	0	99	85	115				
Vanadium	0.508	0.010	0.5	0.0006646	101	85	115				
Zinc	0.521	0.010	0.5	0.00243	104	85	115				

Associated samples: **H15090206-001C, H15090206-002C, H15090206-003C, H15090206-004C, H15090206-005C, H15090206-006C, H15090206-007C, H15090206-008C, H15090206-009C, H15090206-010C, H15090206-011C, H15090206-012C, H15090206-013C, H15090206-014C**

Run ID :Run Order: **ICPMS204-B_150911A: 189** SampType: **Sample Matrix Spike** Lab ID: **H15090191-001CMS3** Method: **E200.8**

Analysis Date: **09/12/15 07:43** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.31	0.030	2.5	0.02177	91	70	130				
Antimony	0.521	0.0010	0.5	0.0002828	104	70	130				
Arsenic	0.551	0.0010	0.5	0.009979	108	70	130				
Barium	0.525	0.050	0.5	0.006189	104	70	130				
Beryllium	0.216	0.0010	0.25	0	86	70	130				
Boron	0.452	0.050	0.5	0.008375	89	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30478

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 189** SampType: **Sample Matrix Spike** Lab ID: **H15090191-001CMS3** Method: **E200.8**

Analysis Date: **09/12/15 07:43** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.245	0.0010	0.25	0.0000247	98	70	130				
Calcium	138	1.0	25	108.6		70	130				A
Chromium	0.502	0.0050	0.5	0.0001709	100	70	130				
Cobalt	0.506	0.0050	0.5	0.003814	100	70	130				
Copper	0.489	0.0050	0.5	0.001859	97	70	130				
Iron	2.53	0.020	2.5	0.02838	100	70	130				
Lead	0.499	0.0010	0.5	0.000051	100	70	130				
Magnesium	34.8	1.0	25	10.71	96	70	130				
Manganese	2.48	0.0010	2.5	0.0007571	99	70	130				
Molybdenum	0.531	0.0010	0.5	0.0002321	106	70	130				
Nickel	0.497	0.0050	0.5	0.0007283	99	70	130				
Potassium	27.8	1.0	25	1.932	103	70	130				
Selenium	0.489	0.0010	0.5	0.005176	97	70	130				
Silver	0.0490	0.0010	0.05	0.0001694	98	70	130				
Sodium	30.3	1.0	25	6.145	97	70	130				
Uranium	0.494	0.00030	0.5	0.002098	98	70	130				
Vanadium	0.515	0.010	0.5	0.001829	103	70	130				
Zinc	0.464	0.010	0.5	0.002336	92	70	130				

Associated samples: **H15090206-001C, H15090206-002C, H15090206-003C, H15090206-004C, H15090206-005C, H15090206-006C, H15090206-007C, H15090206-008C, H15090206-009C, H15090206-010C, H15090206-011C, H15090206-012C, H15090206-013C, H15090206-014C**

Run ID :Run Order: **ICPMS204-B_150911A: 190** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090191-001CMSD3** Method: **E200.8**

Analysis Date: **09/12/15 07:46** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.28	0.030	2.5	0.02177	90	70	130	2.308	1.4	20	
Antimony	0.513	0.0010	0.5	0.0002828	103	70	130	0.521	1.6	20	
Arsenic	0.541	0.0010	0.5	0.009979	106	70	130	0.5508	1.9	20	
Barium	0.517	0.050	0.5	0.006189	102	70	130	0.5254	1.7	20	
Beryllium	0.212	0.0010	0.25	0	85	70	130	0.2157	1.7	20	
Boron	0.466	0.050	0.5	0.008375	91	70	130	0.4516	3.1	20	
Cadmium	0.241	0.0010	0.25	0.0000247	97	70	130	0.2449	1.5	20	
Calcium	135	1.0	25	108.6		70	130	137.7	1.8	20	A
Chromium	0.497	0.0050	0.5	0.0001709	99	70	130	0.5024	1.1	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30478

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 190** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090191-001CMSD3** Method: **E200.8**

Analysis Date: **09/12/15 07:46** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt	0.498	0.0050	0.5	0.003814	99	70	130	0.5056	1.5	20	
Copper	0.484	0.0050	0.5	0.001859	96	70	130	0.4887	0.9	20	
Iron	2.51	0.020	2.5	0.02838	99	70	130	2.531	1.0	20	
Lead	0.497	0.0010	0.5	0.000051	99	70	130	0.4994	0.4	20	
Magnesium	34.3	1.0	25	10.71	94	70	130	34.76	1.4	20	
Manganese	2.46	0.0010	2.5	0.0007571	98	70	130	2.479	0.9	20	
Molybdenum	0.523	0.0010	0.5	0.0002321	105	70	130	0.5308	1.4	20	
Nickel	0.492	0.0050	0.5	0.0007283	98	70	130	0.4972	1.2	20	
Potassium	27.7	1.0	25	1.932	103	70	130	27.79	0.3	20	
Selenium	0.486	0.0010	0.5	0.005176	96	70	130	0.4894	0.7	20	
Silver	0.0484	0.0010	0.05	0.0001694	96	70	130	0.04898	1.3	20	
Sodium	30.0	1.0	25	6.145	96	70	130	30.32	0.9	20	
Uranium	0.494	0.00030	0.5	0.002098	98	70	130	0.4942	0.0	20	
Vanadium	0.506	0.010	0.5	0.001829	101	70	130	0.5149	1.7	20	
Zinc	0.464	0.010	0.5	0.002336	92	70	130	0.4645	0.2	20	

Associated samples: **H15090206-001C, H15090206-002C, H15090206-003C, H15090206-004C, H15090206-005C, H15090206-006C, H15090206-007C, H15090206-008C, H15090206-009C, H15090206-010C, H15090206-011C, H15090206-012C, H15090206-013C, H15090206-014C**

Run ID :Run Order: **ICPMS204-B_150911A: 220** SampType: **Sample Matrix Spike** Lab ID: **H15090206-005CMS3** Method: **E200.8**

Analysis Date: **09/12/15 09:22** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.28	0.030	2.5	0.04934	89	70	130				
Antimony	0.505	0.0010	0.5	0.0003934	101	70	130				
Arsenic	0.529	0.0010	0.5	0.006648	104	70	130				
Barium	0.542	0.050	0.5	0.04264	100	70	130				
Beryllium	0.205	0.0010	0.25	0	82	70	130				
Boron	0.507	0.050	0.5	0.07078	87	70	130				
Cadmium	0.238	0.0010	0.25	0.0001832	95	70	130				
Calcium	76.3	1.0	25	51.09	101	70	130				
Chromium	0.485	0.0050	0.5	0.0001701	97	70	130				
Cobalt	0.485	0.0050	0.5	0.0001346	97	70	130				
Copper	0.492	0.0050	0.5	0.0137	96	70	130				
Iron	2.57	0.020	2.5	0.1438	97	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30478

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 220** SampType: **Sample Matrix Spike** Lab ID: **H15090206-005CMS3** Method: **E200.8**

Analysis Date: **09/12/15 09:22** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.488	0.0010	0.5	0.0009489	97	70	130				
Magnesium	35.3	1.0	25	12.2	92	70	130				
Manganese	2.54	0.0010	2.5	0.1404	96	70	130				
Molybdenum	0.521	0.0010	0.5	0.005961	103	70	130				
Nickel	0.483	0.0050	0.5	0.002294	96	70	130				
Potassium	31.2	1.0	25	6.395	99	70	130				
Selenium	0.502	0.0010	0.5	0.0005061	100	70	130				
Silver	0.0478	0.0010	0.05	0.0000876	95	70	130				
Sodium	50.8	1.0	25	28.04	91	70	130				
Uranium	0.485	0.00030	0.5	0.005106	96	70	130				
Vanadium	0.497	0.010	0.5	0.002994	99	70	130				
Zinc	0.507	0.010	0.5	0.0549	90	70	130				

Associated samples: **H15090206-001C, H15090206-002C, H15090206-003C, H15090206-004C, H15090206-005C, H15090206-006C, H15090206-007C, H15090206-008C, H15090206-009C, H15090206-010C, H15090206-011C, H15090206-012C, H15090206-013C, H15090206-014C**

Run ID :Run Order: **ICPMS204-B_150911A: 221** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-005CMSD3** Method: **E200.8**

Analysis Date: **09/12/15 09:25** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.28	0.030	2.5	0.04934	89	70	130	2.279	0.0	20	
Antimony	0.500	0.0010	0.5	0.0003934	100	70	130	0.5051	0.9	20	
Arsenic	0.527	0.0010	0.5	0.006648	104	70	130	0.5289	0.3	20	
Barium	0.540	0.050	0.5	0.04264	100	70	130	0.5421	0.4	20	
Beryllium	0.202	0.0010	0.25	0	81	70	130	0.2054	1.7	20	
Boron	0.502	0.050	0.5	0.07078	86	70	130	0.507	0.9	20	
Cadmium	0.236	0.0010	0.25	0.0001832	94	70	130	0.2378	0.8	20	
Calcium	76.4	1.0	25	51.09	101	70	130	76.3	0.1	20	
Chromium	0.480	0.0050	0.5	0.0001701	96	70	130	0.4849	1.0	20	
Cobalt	0.483	0.0050	0.5	0.0001346	97	70	130	0.4854	0.5	20	
Copper	0.487	0.0050	0.5	0.0137	95	70	130	0.4924	1.2	20	
Iron	2.56	0.020	2.5	0.1438	97	70	130	2.571	0.4	20	
Lead	0.484	0.0010	0.5	0.0009489	97	70	130	0.4875	0.7	20	
Magnesium	35.1	1.0	25	12.2	92	70	130	35.27	0.5	20	
Manganese	2.52	0.0010	2.5	0.1404	95	70	130	2.54	0.6	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30478

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 221** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-005CMSD3** Method: **E200.8**

Analysis Date: **09/12/15 09:25** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	0.518	0.0010	0.5	0.005961	**102**	70	130	0.5208	**0.6**	20	
Nickel	0.481	0.0050	0.5	0.002294	**96**	70	130	0.4832	**0.5**	20	
Potassium	31.2	1.0	25	6.395	**99**	70	130	31.22	**0.1**	20	
Selenium	0.502	0.0010	0.5	0.0005061	**100**	70	130	0.5018	**0.1**	20	
Silver	0.0475	0.0010	0.05	0.0000876	**95**	70	130	0.04778	**0.7**	20	
Sodium	50.6	1.0	25	28.04	**90**	70	130	50.76	**0.2**	20	
Uranium	0.479	0.00030	0.5	0.005106	**95**	70	130	0.4855	**1.3**	20	
Vanadium	0.494	0.010	0.5	0.002994	**98**	70	130	0.4969	**0.5**	20	
Zinc	0.501	0.010	0.5	0.0549	**89**	70	130	0.5069	**1.1**	20	

Associated samples: **H15090206-001C, H15090206-002C, H15090206-003C, H15090206-004C, H15090206-005C, H15090206-006C, H15090206-007C, H15090206-008C, H15090206-009C, H15090206-010C, H15090206-011C, H15090206-012C, H15090206-013C, H15090206-014C**

Run ID :Run Order: **ICPMS204-B_150914B: 34** SampType: **Method Blank** Lab ID: **MB-30478** Method: **E200.8**

Analysis Date: **09/14/15 13:34** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	0.00010	6E-05									
Arsenic	0.0001	6E-05									
Barium	0.0002	0.0001									
Beryllium	ND	0.0003									
Boron	0.006	0.002									
Cadmium	ND	1E-05									
Calcium	0.010	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	ND	0.0002									
Iron	0.003	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	ND	4E-05									
Nickel	ND	3E-05									
Potassium	ND	0.02									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30478

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150914B: 34** SampType: **Method Blank** Lab ID: **MB-30478** Method: **E200.8**

Analysis Date: **09/14/15 13:34** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	ND	0.0004									
Silver	7E-05	5E-05									
Sodium	0.04	0.004									
Uranium	ND	5E-05									
Vanadium	0.004	0.0001									
Zinc	ND	0.002									

Associated samples: **H15090206-001C, H15090206-002C, H15090206-003C, H15090206-004C, H15090206-005C, H15090206-006C, H15090206-007C, H15090206-008C, H15090206-009C, H15090206-010C, H15090206-011C, H15090206-012C, H15090206-013C, H15090206-014C**

Run ID :Run Order: **ICPMS204-B_150915A: 21** SampType: **Method Blank** Lab ID: **MB-30478** Method: **E200.8**

Analysis Date: **09/15/15 10:37** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	0.0002	6E-05									
Arsenic	0.0001	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	0.003	0.002									
Cadmium	ND	1E-05									
Calcium	ND	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	ND	0.0002									
Iron	ND	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	4E-05	4E-05									
Nickel	5E-05	3E-05									
Potassium	ND	0.02									
Selenium	ND	0.0004									
Silver	0.0003	5E-05									
Sodium	0.01	0.004									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30478

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150915A: 21** SampType: **Method Blank** Lab ID: **MB-30478** Method: **E200.8**

Analysis Date: **09/15/15 10:37** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Uranium	ND	5E-05									
Vanadium	0.004	0.0001									
Zinc	ND	0.002									

Associated samples: **H15090206-001C, H15090206-002C, H15090206-003C, H15090206-004C, H15090206-005C, H15090206-006C, H15090206-007C, H15090206-008C, H15090206-009C, H15090206-010C, H15090206-011C, H15090206-012C, H15090206-013C, H15090206-014C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30479

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 255** SampType: **Method Blank** Lab ID: **MB-30479** Method: **E200.8**

Analysis Date: **09/12/15 11:15** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	0.00010	6E-05									
Arsenic	0.0002	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	0.004	0.002									
Cadmium	ND	1E-05									
Calcium	0.01	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	0.0002	0.0002									
Iron	ND	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	5E-05	4E-05									
Nickel	ND	3E-05									
Potassium	ND	0.02									
Selenium	ND	7E-05									
Silver	ND	5E-05									
Sodium	ND	0.004									
Uranium	6E-05	5E-05									
Vanadium	0.0009	0.0001									
Zinc	ND	0.002									

Associated samples: **H15090206-015C, H15090206-016C, H15090206-017C, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150911A: 256** SampType: **Laboratory Control Sample** Lab ID: **LCS-30479** Method: **E200.8**

Analysis Date: **09/12/15 11:18** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.29	0.030	2.5	0	**92**	85	115				
Antimony	0.520	0.0010	0.5	0.0000985	**104**	85	115				
Arsenic	0.551	0.0010	0.5	0.0001613	**110**	85	115				
Barium	0.519	0.050	0.5	0	**104**	85	115				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30479

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 256** SampType: **Laboratory Control Sample** Lab ID: **LCS-30479** Method: **E200.8**

Analysis Date: **09/12/15 11:18** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.218	0.0010	0.25	0	87	85	115				
Boron	0.456	0.050	0.5	0.004186	90	85	115				
Cadmium	0.252	0.0010	0.25	0	101	85	115				
Calcium	26.1	1.0	25	0.01306	105	85	115				
Chromium	0.498	0.0050	0.5	0	100	85	115				
Cobalt	0.503	0.0050	0.5	0	101	85	115				
Copper	0.503	0.0050	0.5	0.0002289	101	85	115				
Iron	2.50	0.020	2.5	0	100	85	115				
Lead	0.502	0.0010	0.5	0	100	85	115				
Magnesium	24.4	1.0	25	0	97	85	115				
Manganese	2.48	0.0010	2.5	0	99	85	115				
Molybdenum	0.524	0.0010	0.5	0.0000505	105	85	115				
Nickel	0.508	0.0050	0.5	0	102	85	115				
Potassium	25.8	1.0	25	0	103	85	115				
Selenium	0.525	0.0010	0.5	0	105	85	115				
Silver	0.0501	0.0010	0.05	0	100	85	115				
Sodium	24.1	1.0	25	0	96	85	115				
Uranium	0.482	0.00030	0.5	0.0000639	96	85	115				
Vanadium	0.504	0.010	0.5	0.0009136	101	85	115				
Zinc	0.497	0.010	0.5	0	99	85	115				

Associated samples: **H15090206-015C, H15090206-016C, H15090206-017C, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150911A: 260** SampType: **Sample Matrix Spike** Lab ID: **H15090206-015CMS3** Method: **E200.8**

Analysis Date: **09/12/15 11:31** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.39	0.030	2.5	0.06507	93	70	130				
Antimony	0.515	0.0010	0.5	0.0003891	103	70	130				
Arsenic	0.551	0.0010	0.5	0.006552	109	70	130				
Barium	0.558	0.050	0.5	0.03588	105	70	130				
Beryllium	0.210	0.0010	0.25	0	84	70	130				
Boron	0.498	0.050	0.5	0.04941	90	70	130				
Cadmium	0.244	0.0010	0.25	0.0001368	98	70	130				
Calcium	81.7	1.0	25	54.01	111	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30479

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 260** SampType: **Sample Matrix Spike** Lab ID: **H15090206-015CMS3** Method: **E200.8**

Analysis Date: **09/12/15 11:31** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.499	0.0050	0.5	0.0002072	100	70	130				
Cobalt	0.506	0.0050	0.5	0.0005355	101	70	130				
Copper	0.504	0.0050	0.5	0.008754	99	70	130				
Iron	2.64	0.020	2.5	0.1174	101	70	130				
Lead	0.506	0.0010	0.5	0.0008798	101	70	130				
Magnesium	35.7	1.0	25	11.58	97	70	130				
Manganese	2.59	0.0010	2.5	0.1103	99	70	130				
Molybdenum	0.533	0.0010	0.5	0.004168	106	70	130				
Nickel	0.502	0.0050	0.5	0.0007039	100	70	130				
Potassium	31.2	1.0	25	5.007	105	70	130				
Selenium	0.497	0.0010	0.5	0.000282	99	70	130				
Silver	0.0491	0.0010	0.05	0.0001009	98	70	130				
Sodium	47.5	1.0	25	23.39	97	70	130				
Uranium	0.494	0.00030	0.5	0.003963	98	70	130				
Vanadium	0.514	0.010	0.5	0.00251	102	70	130				
Zinc	0.503	0.010	0.5	0.03383	94	70	130				

Associated samples: **H15090206-015C, H15090206-016C, H15090206-017C, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150911A: 261** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-015CMSD3** Method: **E200.8**

Analysis Date: **09/12/15 11:34** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.39	0.030	2.5	0.06507	93	70	130	2.394	0.1	20	
Antimony	0.519	0.0010	0.5	0.0003891	104	70	130	0.5151	0.8	20	
Arsenic	0.553	0.0010	0.5	0.006552	109	70	130	0.551	0.4	20	
Barium	0.558	0.050	0.5	0.03588	105	70	130	0.5585	0.0	20	
Beryllium	0.211	0.0010	0.25	0	84	70	130	0.2097	0.6	20	
Boron	0.506	0.050	0.5	0.04941	91	70	130	0.4975	1.8	20	
Cadmium	0.246	0.0010	0.25	0.0001368	98	70	130	0.2441	0.8	20	
Calcium	82.1	1.0	25	54.01	112	70	130	81.74	0.4	20	
Chromium	0.501	0.0050	0.5	0.0002072	100	70	130	0.4994	0.4	20	
Cobalt	0.505	0.0050	0.5	0.0005355	101	70	130	0.5058	0.2	20	
Copper	0.505	0.0050	0.5	0.008754	99	70	130	0.5036	0.2	20	
Iron	2.66	0.020	2.5	0.1174	102	70	130	2.64	0.6	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30479

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 261** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-015CMSD3** Method: **E200.8**

Analysis Date: **09/12/15 11:34** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.509	0.0010	0.5	0.0008798	**102**	70	130	0.506	**0.6**	20	
Magnesium	35.7	1.0	25	11.58	**96**	70	130	35.71	**0.1**	20	
Manganese	2.61	0.0010	2.5	0.1103	**100**	70	130	2.589	**0.7**	20	
Molybdenum	0.539	0.0010	0.5	0.004168	**107**	70	130	0.5327	**1.1**	20	
Nickel	0.500	0.0050	0.5	0.0007039	**100**	70	130	0.5015	**0.4**	20	
Potassium	31.4	1.0	25	5.007	**106**	70	130	31.19	**0.6**	20	
Selenium	0.503	0.0010	0.5	0.000282	**100**	70	130	0.4971	**1.1**	20	
Silver	0.0494	0.0010	0.05	0.0001009	**99**	70	130	0.0491	**0.6**	20	
Sodium	47.6	1.0	25	23.39	**97**	70	130	47.52	**0.1**	20	
Uranium	0.498	0.00030	0.5	0.003963	**99**	70	130	0.4945	**0.6**	20	
Vanadium	0.517	0.010	0.5	0.00251	**103**	70	130	0.5141	**0.5**	20	
Zinc	0.503	0.010	0.5	0.03383	**94**	70	130	0.5032	**0.0**	20	

Associated samples: **H15090206-015C, H15090206-016C, H15090206-017C, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150914B: 145** SampType: **Method Blank** Lab ID: **MB-30479** Method: **E200.8**

Analysis Date: **09/14/15 19:54** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	ND	6E-05									
Arsenic	0.0001	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	0.004	0.002									
Cadmium	ND	1E-05									
Calcium	0.02	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	0.0005	0.0002									
Iron	ND	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	5E-05	4E-05									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30479

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150914B: 145** SampType: **Method Blank** Lab ID: **MB-30479** Method: **E200.8**

Analysis Date: **09/14/15 19:54** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	ND	3E-05									
Potassium	ND	0.02									
Selenium	ND	0.0004									
Silver	ND	5E-05									
Sodium	0.02	0.004									
Uranium	8E-05	5E-05									
Vanadium	0.004	0.0001									
Zinc	ND	0.002									

Associated samples: **H15090206-015C, H15090206-016C, H15090206-017C, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150915A: 23** SampType: **Method Blank** Lab ID: **MB-30479** Method: **E200.8**

Analysis Date: **09/15/15 10:43** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	ND	6E-05									
Arsenic	0.0001	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	0.003	0.002									
Cadmium	ND	1E-05									
Calcium	ND	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	0.0004	0.0002									
Iron	ND	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	ND	4E-05									
Nickel	ND	3E-05									
Potassium	ND	0.02									
Selenium	ND	0.0004									
Silver	ND	5E-05									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30479

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150915A: 23** SampType: **Method Blank** Lab ID: **MB-30479** Method: **E200.8**

Analysis Date: **09/15/15 10:43** Units: **mg/L** **Prep Info:** Prep Date: **9/11/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	0.02	0.004									
Uranium	ND	5E-05									
Vanadium	0.004	0.0001									
Zinc	ND	0.002									

Associated samples: **H15090206-015C, H15090206-016C, H15090206-017C, H15090206-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30498

Date: *23-Oct-15*

Run ID :Run Order: **FIA202-HE_150914A: 12** SampType: **Laboratory Control Sample** Lab ID: **LCS-30498** Method: **E365.1**

Analysis Date: **09/14/15 14:36** Units: **mg/L** **Prep Info:** Prep Date: **9/14/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.425	0.010	0.4	0	106	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA202-HE_150914A: 13** SampType: **Method Blank** Lab ID: **MB-30498** Method: **E365.1**

Analysis Date: **09/14/15 14:37** Units: **mg/L** **Prep Info:** Prep Date: **9/14/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	ND	0.001									

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA202-HE_150914A: 43** SampType: **Sample Matrix Spike** Lab ID: **H15090206-001DMS** Method: **E365.1**

Analysis Date: **09/14/15 15:07** Units: **mg/L** **Prep Info:** Prep Date: **9/14/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.968	0.010	0.2	0.6979	135	90	110				S

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA202-HE_150914A: 44** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-001DMSD** Method: **E365.1**

Analysis Date: **09/14/15 15:08** Units: **mg/L** **Prep Info:** Prep Date: **9/14/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.952	0.010	0.2	0.6979	127	90	110	0.9676	1.6	20	S

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30498

Date: *23-Oct-15*

Run ID :Run Order: **FIA202-HE_150914A: 47** SampType: **Sample Matrix Spike** Lab ID: **H15090206-010DMS** Method: **E365.1**

Analysis Date: **09/14/15 15:11** Units: **mg/L** **Prep Info:** Prep Date: **9/14/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.493	0.010	0.2	0.2756	108	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA202-HE_150914A: 48** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-010DMSD** Method: **E365.1**

Analysis Date: **09/14/15 15:13** Units: **mg/L** **Prep Info:** Prep Date: **9/14/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.502	0.010	0.2	0.2756	113	90	110	0.4925	2.0	20	S

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA202-HE_150915A: 12** SampType: **Laboratory Control Sample** Lab ID: **LCS-30498** Method: **E365.1**

Analysis Date: **09/15/15 14:50** Units: **mg/L** **Prep Info:** Prep Date: **9/14/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.403	0.010	0.4	0	101	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA202-HE_150915A: 13** SampType: **Method Blank** Lab ID: **MB-30498** Method: **E365.1**

Analysis Date: **09/15/15 14:51** Units: **mg/L** **Prep Info:** Prep Date: **9/14/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	ND	0.001									

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30498

Date: *23-Oct-15*

Run ID :Run Order: **FIA202-HE_150915A: 16** SampType: **Sample Matrix Spike** Lab ID: **H15090206-001Dms** Method: **E365.1**

Analysis Date: **09/15/15 14:54** Units: **mg/L** **Prep Info:** Prep Date: **9/14/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	4.59	0.020	4	0.6524	98	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA202-HE_150915A: 17** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-001Dmsd** Method: **E365.1**

Analysis Date: **09/15/15 14:55** Units: **mg/L** **Prep Info:** Prep Date: **9/14/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	4.44	0.020	4	0.6524	95	90	110	4.587	3.1	20	

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30537

Date: *23-Oct-15*

Run ID :Run Order: **FIA203-HE_150918A: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-30537** Method: **A4500 N-C**
Analysis Date: **09/17/15 11:07** Units: **mg/L** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	6.13	0.15	6.37	0.007425	96	90	110				

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **FIA203-HE_150918A: 12** SampType: **Method Blank** Lab ID: **MB-30537** Method: **A4500 N-C**
Analysis Date: **09/17/15 11:08** Units: **mg/L** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.007	0.005									

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **FIA203-HE_150918A: 15** SampType: **Sample Matrix Spike** Lab ID: **H15090199-003AMS** Method: **A4500 N-C**
Analysis Date: **09/17/15 11:12** Units: **mg/L** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.992	0.10	1	0.02687	96	90	110				

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **FIA203-HE_150918A: 16** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-003AMSD** Method: **A4500 N-C**
Analysis Date: **09/17/15 11:13** Units: **mg/L** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.975	0.10	1	0.02687	95	90	110	0.9916	1.7	20	

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30537

Date: *23-Oct-15*

Run ID :Run Order: **FIA203-HE_150918A: 28** SampType: **Sample Matrix Spike** Lab ID: **H15090206-009Ams** Method: **A4500 N-C**

Analysis Date: **09/17/15 11:27** Units: **mg/L** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.914	0.10	1	0	91	90	110				

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **FIA203-HE_150918A: 29** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-009Amsd** Method: **A4500 N-C**

Analysis Date: **09/17/15 11:29** Units: **mg/L** **Prep Info:** Prep Date: **9/16/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.894	0.10	1	0	89	90	110	0.9141	2.2	20	S

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30560

Date: *23-Oct-15*

Run ID :Run Order: **HGCV202-H_150917A: 32** SampType: **Method Blank** Lab ID: **MB-30560** Method: **E245.1**
Analysis Date: **09/17/15 16:32** Units: **mg/L** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2E-06	1E-06									

Associated samples: **H15090206-001B, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-004B**

Run ID :Run Order: **HGCV202-H_150917A: 35** SampType: **Laboratory Control Sample** Lab ID: **LCS-30560** Method: **E245.1**
Analysis Date: **09/17/15 16:53** Units: **mg/L** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000176	0.00010	0.00015	0.00000157	116	90	110				S

Associated samples: **H15090206-001B, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-004B**

Run ID :Run Order: **HGCV202-H_150917A: 38** SampType: **Sample Matrix Spike** Lab ID: **H15090102-001BMS** Method: **E245.1**
Analysis Date: **09/17/15 17:05** Units: **mg/L** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00016	0.00010	0.00015	0.00000236	104	70	130				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-004B**

Run ID :Run Order: **HGCV202-H_150917A: 39** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090102-001BMSD** Method: **E245.1**
Analysis Date: **09/17/15 17:08** Units: **mg/L** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00017	0.00010	0.00015	0.00000236	110	70	130	0.0001586	5.3	20	

Associated samples: **H15090206-001B, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-004B**

Run ID :Run Order: **HGCV202-H_150917A: 52** SampType: **Sample Matrix Spike** Lab ID: **H15090199-002CMS** Method: **E245.1**
Analysis Date: **09/17/15 17:57** Units: **mg/L** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00018	0.00010	0.00015	0.00000498	116	70	130				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-004B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30560

Date: *23-Oct-15*

Run ID :Run Order: **HGCV202-H_150917A: 53** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-002CMSD** Method: **E245.1**

Analysis Date: **09/17/15 18:01** Units: **mg/L** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00016	0.00010	0.00015	0.00000498	**103**	70	130	0.0001789	**12**	20	

Associated samples: **H15090206-001B, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-004B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30566

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150920A: 89** SampType: **Method Blank** Lab ID: **MB-30566** Method: **SW6010B**

Analysis Date: **09/20/15 23:59** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1	0.7									
Barium	0.06	0.02									
Beryllium	ND	0.009									
Copper	ND	0.2									
Iron	10	0.6									
Manganese	0.04	0.02									
Nickel	ND	0.07									
Vanadium	ND	0.2									
Zinc	1	0.10									

Associated samples: **H15090206-019A, H15090206-022A, H15090206-025A, H15090206-028A, H15090206-031A, H15090206-034A, H15090206-037A, H15090206-040A, H15090206-043A, H15090206-046A**

Run ID :Run Order: **ICP2-HE_150920A: 90** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30566** Method: **SW6010B**

Analysis Date: **09/21/15 00:03** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	260	5.0	246.6	1.406	**105**	80	120				
Barium	50.4	1.0	49.33	0.05967	**102**	80	120				
Beryllium	25.3	1.0	24.66	0	**103**	80	120				
Copper	50.3	1.0	49.33	0	**102**	80	120				
Iron	260	5.0	246.6	9.964	**101**	80	120				
Manganese	246	1.0	246.6	0.04187	**100**	80	120				
Nickel	49.9	1.0	49.33	0	**101**	80	120				
Vanadium	49.6	1.0	49.33	0	**101**	80	120				
Zinc	49.8	1.0	49.33	1.035	**99**	80	120				

Associated samples: **H15090206-019A, H15090206-022A, H15090206-025A, H15090206-028A, H15090206-031A, H15090206-034A, H15090206-037A, H15090206-040A, H15090206-043A, H15090206-046A**

Run ID :Run Order: **ICP2-HE_150920A: 91** SampType: **Laboratory Control Sample** Lab ID: **LCS-30566** Method: **SW6010B**

Analysis Date: **09/21/15 00:06** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9690	5.0	9830	1.406	**99**	46.3	130.2				
Barium	175	1.0	187	0.05967	**94**	78.6	112.8				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30566

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150920A: 91** SampType: **Laboratory Control Sample** Lab ID: **LCS-30566** Method: **SW6010B**

Analysis Date: **09/21/15 00:06** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	83.4	1.0	83.6	0	100	76.2	108				
Copper	128	1.1	137	0	93	76.6	108.8				
Iron	16700	5.0	16300	9.964	102	51.7	131.9				
Manganese	426	1.0	434	0.04187	98	81.1	116.6				
Nickel	80.1	1.0	86.2	0	93	72.3	105				
Vanadium	111	1.0	114	0	97	67	107				
Zinc	243	1.0	231	1.035	105	75.3	111.7				

Associated samples: **H15090206-019A, H15090206-022A, H15090206-025A, H15090206-028A, H15090206-031A, H15090206-034A, H15090206-037A, H15090206-040A, H15090206-043A, H15090206-046A**

Run ID :Run Order: **ICP2-HE_150920A: 104** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090206-046APDS** Method: **SW6010B**

Analysis Date: **09/21/15 00:54** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	31000	9.8	3679	27460		75	125				A
Barium	1130	1.0	735.7	458.7	91	75	125				
Beryllium	332	1.0	367.9	1.263	90	75	125				
Copper	1140	3.2	735.7	462.8	92	75	125				
Iron	31400	8.7	3679	28530		75	125				A
Manganese	5910	1.0	3679	2775	85	75	125				
Nickel	665	1.0	735.7	21.61	87	75	125				
Vanadium	709	2.2	735.7	60.16	88	75	125				
Zinc	2390	1.4	735.7	1759	86	75	125				

Associated samples: **H15090206-019A, H15090206-022A, H15090206-025A, H15090206-028A, H15090206-031A, H15090206-034A, H15090206-037A, H15090206-040A, H15090206-043A, H15090206-046A**

Run ID :Run Order: **ICP2-HE_150920A: 105** SampType: **Sample Matrix Spike** Lab ID: **H15090206-046AMS** Method: **SW6010B**

Analysis Date: **09/21/15 00:58** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	36800	9.6	719.9	27460		75	125				A
Barium	657	1.0	144	458.7	138	75	125				S
Beryllium	72.0	1.0	71.99	1.263	98	75	125				
Copper	636	3.2	144	462.8	121	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30566

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150920A: 105** SampType: **Sample Matrix Spike** Lab ID: **H15090206-046AMS** Method: **SW6010B**

Analysis Date: **09/21/15 00:58** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	33600	8.5	719.9	28530		75	125				A
Manganese	3670	1.0	719.9	2775	125	75	125				
Nickel	155	1.0	144	21.61	93	75	125				
Vanadium	209	2.1	144	60.16	103	75	125				
Zinc	1960	1.3	144	1759		75	125				A

Associated samples: **H15090206-019A, H15090206-022A, H15090206-025A, H15090206-028A, H15090206-031A, H15090206-034A, H15090206-037A, H15090206-040A, H15090206-043A, H15090206-046A**

- S= Spike recovery outside of QC advisory limits. The recovery in he Laboratory Control Sample was within QC advisory limits. This suggests that the Matrix Spike recover is due to matrix interference.

Run ID :Run Order: **ICP2-HE_150920A: 106** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-046AMSD** Method: **SW6010B**

Analysis Date: **09/21/15 01:02** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	35300	9.3	700.3	27460		75	125	36750	4.0	20	A
Barium	617	1.0	140.1	458.7	113	75	125	657	6.2	20	
Beryllium	70.5	1.0	70.03	1.263	99	75	125	71.98	2.0	20	
Copper	624	3.1	140.1	462.8	115	75	125	636.5	2.0	20	
Iron	32200	8.2	700.3	28530		75	125	33630	4.3	20	A
Manganese	3570	1.0	700.3	2775	114	75	125	3675	2.8	20	
Nickel	158	1.0	140.1	21.61	97	75	125	155.4	1.6	20	
Vanadium	204	2.1	140.1	60.16	103	75	125	208.9	2.2	20	
Zinc	1980	1.3	140.1	1759		75	125	1956	1.1	20	A

Associated samples: **H15090206-019A, H15090206-022A, H15090206-025A, H15090206-028A, H15090206-031A, H15090206-034A, H15090206-037A, H15090206-040A, H15090206-043A, H15090206-046A**

Run ID :Run Order: **ICP2-HE_150921B: 56** SampType: **Method Blank** Lab ID: **MB-30566** Method: **SW6010B**

Analysis Date: **09/21/15 17:50** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.7	0.7									
Barium	0.1	0.02									
Beryllium	ND	0.009									
Copper	0.3	0.2									
Iron	9	0.6									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30566

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150921B: 56** SampType: **Method Blank** Lab ID: **MB-30566** Method: **SW6010B**

Analysis Date: **09/21/15 17:50** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.07	0.02									
Nickel	ND	0.07									
Vanadium	ND	0.2									
Zinc	1.0	0.10									

Associated samples: **H15090206-019A, H15090206-022A, H15090206-025A, H15090206-028A, H15090206-031A, H15090206-034A, H15090206-037A, H15090206-040A, H15090206-043A, H15090206-046A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30566

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150924B: 34** SampType: **Method Blank** Lab ID: **MB-30566** Method: **SW6020**

Analysis Date: **09/24/15 19:07** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.1	0.08									
Arsenic	ND	0.05									
Boron	ND	2									
Cadmium	ND	0.2									
Chromium	0.09	0.04									
Cobalt	ND	0.04									
Lead	ND	0.10									
Molybdenum	ND	0.10									
Selenium	0.2	0.2									
Silver	0.1	0.06									
Uranium	ND	0.06									

Associated samples: **H15090206-019A, H15090206-022A, H15090206-025A, H15090206-028A, H15090206-031A, H15090206-034A, H15090206-037A, H15090206-040A, H15090206-043A, H15090206-046A**

Run ID :Run Order: **ICPMS204-B_150924B: 35** SampType: **Laboratory Control Sample** Lab ID: **LCS-30566** Method: **SW6020**

Analysis Date: **09/24/15 19:10** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	62.6	1.0	240	0.118	**26**	0	92.9				
Arsenic	160	1.0	196	0	**82**	71.4	105.1				
Boron	110	2.1	129	0	**85**	59.5	106.2				
Cadmium	98.9	1.0	99	0	**100**	73.9	106.1				
Chromium	105	1.0	117	0.08919	**90**	73.5	108.5				
Cobalt	103	1.0	108	0	**95**	74.2	105.6				
Lead	106	1.0	105	0	**101**	74.4	108.6				
Molybdenum	117	1.0	127	0	**92**	66.5	103.1				
Selenium	182	1.0	205	0.2371	**89**	71.2	110.2				
Silver	43.4	1.0	42.1	0.1088	**103**	70.8	111.9				
Uranium	100	1.0	99.9	0	**101**	80.1	120.1				

Associated samples: **H15090206-019A, H15090206-022A, H15090206-025A, H15090206-028A, H15090206-031A, H15090206-034A, H15090206-037A, H15090206-040A, H15090206-043A, H15090206-046A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30566

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150924B: 36** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30566** Method: **SW6020**

Analysis Date: **09/24/15 19:13** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	51.3	1.0	49.33	0.118	104	80	120				
Arsenic	45.4	1.0	49.33	0	92	80	120				
Boron	47.2	2.1	49.33	0	96	80	120				
Cadmium	24.5	1.0	24.66	0	99	80	120				
Chromium	44.5	1.0	49.33	0.08919	90	80	120				
Cobalt	44.5	1.0	49.33	0	90	80	120				
Lead	49.2	1.0	49.33	0	100	80	120				
Molybdenum	47.8	1.0	49.33	0	97	80	120				
Selenium	45.0	1.0	49.33	0.2371	91	80	120				
Silver	24.0	1.0	24.66	0.1088	97	80	120				
Uranium	50.3	1.0	49.33	0	102	80	120				

Associated samples: **H15090206-019A, H15090206-022A, H15090206-025A, H15090206-028A, H15090206-031A, H15090206-034A, H15090206-037A, H15090206-040A, H15090206-043A, H15090206-046A**

Run ID :Run Order: **ICPMS204-B_150924B: 52** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090206-046APDS** Method: **SW6020**

Analysis Date: **09/24/15 20:04** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	1440	1.0	1429	0.6943	101	75	125				
Arsenic	1280	1.0	1429	30.64	87	75	125				
Boron	1220	6.2	1429	11.99	85	75	125				
Cadmium	669	1.0	714.3	8.105	93	75	125				
Chromium	1260	1.0	1429	34.06	86	75	125				
Cobalt	1210	1.0	1429	11.33	84	75	125				
Lead	1580	1.0	1429	240.7	94	75	125				
Molybdenum	1360	1.0	1429	4.827	95	75	125				
Selenium	1200	1.0	1429	1.614	84	75	125				
Silver	455	1.0	714.3	1.728	64	75	125				S
Uranium	1400	1.0	1429	4.683	97	75	125				

Associated samples: **H15090206-019A, H15090206-022A, H15090206-025A, H15090206-028A, H15090206-031A, H15090206-034A, H15090206-037A, H15090206-040A, H15090206-043A, H15090206-046A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30566

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150924B: 53** SampType: **Sample Matrix Spike** Lab ID: **H15090206-046AMS** Method: **SW6020**

Analysis Date: **09/24/15 20:07** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	56.6	1.0	144	0.6943	39	75	125				S
Arsenic	162	1.0	144	30.64	91	75	125				
Boron	150	6.2	144	11.99	96	75	125				
Cadmium	78.1	1.0	71.99	8.105	97	75	125				
Chromium	169	1.0	144	34.06	94	75	125				
Cobalt	141	1.0	144	11.33	90	75	125				
Lead	404	1.0	144	240.7	113	75	125				
Molybdenum	140	1.0	144	4.827	94	75	125				
Selenium	127	1.0	144	1.614	87	75	125				
Silver	71.7	1.0	71.99	1.728	97	75	125				
Uranium	153	1.0	144	4.683	103	75	125				

Associated samples: **H15090206-019A, H15090206-022A, H15090206-025A, H15090206-028A, H15090206-031A, H15090206-034A, H15090206-037A, H15090206-040A, H15090206-043A, H15090206-046A**

Run ID :Run Order: **ICPMS204-B_150924B: 54** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-046AMSD** Method: **SW6020**

Analysis Date: **09/24/15 20:10** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	54.4	1.0	140.1	0.6943	38	75	125	56.61	4.0	20	S
Arsenic	162	1.0	140.1	30.64	94	75	125	161.8	0.4	20	
Boron	146	6.1	140.1	11.99	96	75	125	150	2.8	20	
Cadmium	77.9	1.0	70.03	8.105	100	75	125	78.09	0.3	20	
Chromium	170	1.0	140.1	34.06	97	75	125	169.5	0.2	20	
Cobalt	142	1.0	140.1	11.33	93	75	125	141.2	0.5	20	
Lead	412	1.0	140.1	240.7	123	75	125	403.7	2.1	20	
Molybdenum	139	1.0	140.1	4.827	96	75	125	140.3	0.6	20	
Selenium	127	1.0	140.1	1.614	90	75	125	126.6	0.7	20	
Silver	71.7	1.0	70.03	1.728	100	75	125	71.75	0.1	20	
Uranium	152	1.0	140.1	4.683	105	75	125	152.6	0.3	20	

Associated samples: **H15090206-019A, H15090206-022A, H15090206-025A, H15090206-028A, H15090206-031A, H15090206-034A, H15090206-037A, H15090206-040A, H15090206-043A, H15090206-046A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30566

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 112** SampType: **Method Blank** Lab ID: **MB-30566** Method: **SW6020**

Analysis Date: **09/25/15 17:01** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.09	0.05									
Boron	ND	2									
Cadmium	ND	0.2									
Chromium	0.1	0.04									
Cobalt	ND	0.04									
Lead	ND	0.10									
Molybdenum	ND	0.10									
Selenium	ND	0.2									
Silver	0.1	0.06									
Uranium	ND	0.06									

Associated samples: **H15090206-019A, H15090206-022A, H15090206-025A, H15090206-028A, H15090206-031A, H15090206-034A, H15090206-037A, H15090206-040A, H15090206-043A, H15090206-046A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30567

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150920A: 107** SampType: **Method Blank** Lab ID: **MB-30567** Method: **SW6010B**

Analysis Date: **09/21/15 01:05** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2	0.3									
Barium	0.09	0.02									
Beryllium	ND	0.009									
Copper	ND	0.2									
Iron	5	0.6									
Manganese	0.09	0.02									
Nickel	ND	0.07									
Vanadium	ND	0.1									
Zinc	0.4	0.09									

Associated samples: **H15090206-020A, H15090206-023A, H15090206-026A, H15090206-029A, H15090206-032A, H15090206-035A, H15090206-038A, H15090206-041A, H15090206-044A, H15090206-047A**

Run ID :Run Order: **ICP2-HE_150920A: 108** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30567** Method: **SW6010B**

Analysis Date: **09/21/15 01:09** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	264	5.0	250.8	1.62	**105**	80	120				
Barium	52.5	1.0	50.15	0.08516	**104**	80	120				
Beryllium	25.9	1.0	25.08	0	**103**	80	120				
Copper	51.6	1.0	50.15	0	**103**	80	120				
Iron	267	5.0	250.8	4.637	**105**	80	120				
Manganese	247	1.0	250.8	0.08817	**98**	80	120				
Nickel	49.4	1.0	50.15	0	**99**	80	120				
Vanadium	50.5	1.0	50.15	0	**101**	80	120				
Zinc	49.7	1.0	50.15	0.3707	**98**	80	120				

Associated samples: **H15090206-020A, H15090206-023A, H15090206-026A, H15090206-029A, H15090206-032A, H15090206-035A, H15090206-038A, H15090206-041A, H15090206-044A, H15090206-047A**

Run ID :Run Order: **ICP2-HE_150920A: 109** SampType: **Laboratory Control Sample** Lab ID: **LCS-30567** Method: **SW6010B**

Analysis Date: **09/21/15 01:13** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9810	5.0	9830	1.62	**100**	46.3	130.2				
Barium	174	1.0	187	0.08516	**93**	78.6	112.8				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30567

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150920A: 109** SampType: **Laboratory Control Sample** Lab ID: **LCS-30567** Method: **SW6010B**

Analysis Date: **09/21/15 01:13** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	79.5	1.0	83.6	0	95	76.2	108				
Copper	121	1.1	137	0	88	76.6	108.8				
Iron	15900	5.0	16300	4.637	98	51.7	131.9				
Manganese	404	1.0	434	0.08817	93	81.1	116.6				
Nickel	75.5	1.0	86.2	0	88	72.3	105				
Vanadium	107	1.0	114	0	94	67	107				
Zinc	235	1.0	231	0.3707	101	75.3	111.7				

Associated samples: **H15090206-020A, H15090206-023A, H15090206-026A, H15090206-029A, H15090206-032A, H15090206-035A, H15090206-038A, H15090206-041A, H15090206-044A, H15090206-047A**

Run ID :Run Order: **ICP2-HE_150920A: 125** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090206-047APDS** Method: **SW6010B**

Analysis Date: **09/21/15 02:12** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	7440	5.0	1581	5793	104	75	125				
Barium	451	1.0	316.1	152.3	94	75	125				
Beryllium	148	1.0	158.1	0.2247	93	75	125				
Copper	344	1.4	316.1	44.35	95	75	125				
Iron	16000	5.0	1581	14450		75	125				A
Manganese	2190	1.0	1581	741.2	92	75	125				
Nickel	299	1.0	316.1	4.985	93	75	125				
Vanadium	328	1.0	316.1	37.79	92	75	125				
Zinc	491	1.0	316.1	199.6	92	75	125				

Associated samples: **H15090206-020A, H15090206-023A, H15090206-026A, H15090206-029A, H15090206-032A, H15090206-035A, H15090206-038A, H15090206-041A, H15090206-044A, H15090206-047A**

Run ID :Run Order: **ICP2-HE_150920A: 126** SampType: **Sample Matrix Spike** Lab ID: **H15090206-047AMS** Method: **SW6010B**

Analysis Date: **09/21/15 02:16** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	7100	5.0	300	5793		75	125				A
Barium	201	1.0	59.99	152.3	81	75	125				
Beryllium	30.0	1.0	30	0.2247	99	75	125				
Copper	97.8	1.3	59.99	44.35	89	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30567

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150920A: 126** SampType: **Sample Matrix Spike** Lab ID: **H15090206-047AMS** Method: **SW6010B**

Analysis Date: **09/21/15 02:16** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	13400	5.0	300	14450		75	125				A
Manganese	618	1.0	300	741.2	-41	75	125				S
Nickel	63.0	1.0	59.99	4.985	97	75	125				
Vanadium	92.4	1.0	59.99	37.79	91	75	125				
Zinc	222	1.0	59.99	199.6	37	75	125				S

Associated samples: **H15090206-020A, H15090206-023A, H15090206-026A, H15090206-029A, H15090206-032A, H15090206-035A, H15090206-038A, H15090206-041A, H15090206-044A, H15090206-047A**

- S= Spike recovery outside of QC advisory limits. The recovery in he Laboratory Control Sample was within QC advisory limits. This suggests that the Matrix Spike recover is due to matrix interference.

Run ID :Run Order: **ICP2-HE_150920A: 127** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-047AMSD** Method: **SW6010B**

Analysis Date: **09/21/15 02:19** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	7850	5.0	311.3	5793		75	125	7101	10	20	A
Barium	218	1.0	62.27	152.3	106	75	125	201.1	8.1	20	
Beryllium	31.9	1.0	31.13	0.2247	102	75	125	30.03	6.1	20	
Copper	118	1.4	62.27	44.35	119	75	125	97.78	19	20	
Iron	13700	5.0	311.3	14450		75	125	13380	2.0	20	A
Manganese	621	1.0	311.3	741.2	-38	75	125	618.2	0.5	20	S
Nickel	66.7	1.0	62.27	4.985	99	75	125	63	5.6	20	
Vanadium	94.9	1.0	62.27	37.79	92	75	125	92.36	2.7	20	
Zinc	219	1.0	62.27	199.6	31	75	125	221.7	1.2	20	S

Associated samples: **H15090206-020A, H15090206-023A, H15090206-026A, H15090206-029A, H15090206-032A, H15090206-035A, H15090206-038A, H15090206-041A, H15090206-044A, H15090206-047A**

- S= Spike recovery outside of QC advisory limits. The recovery in he Laboratory Control Sample was within QC advisory limits. This suggests that the Matrix Spike recover is due to matrix interference.

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30567

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150924B: 58** SampType: **Method Blank** Lab ID: **MB-30567** Method: **SW6020**

Analysis Date: **09/24/15 20:23** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.09	0.08									
Arsenic	0.08	0.05									
Boron	ND	2									
Cadmium	ND	0.2									
Chromium	0.1	0.04									
Cobalt	ND	0.04									
Lead	ND	0.10									
Molybdenum	ND	0.09									
Selenium	ND	0.2									
Silver	0.2	0.05									
Uranium	ND	0.06									

Associated samples: **H15090206-020A, H15090206-023A, H15090206-026A, H15090206-029A, H15090206-032A, H15090206-035A, H15090206-038A, H15090206-041A, H15090206-044A, H15090206-047A**

Run ID :Run Order: **ICPMS204-B_150924B: 59** SampType: **Laboratory Control Sample** Lab ID: **LCS-30567** Method: **SW6020**

Analysis Date: **09/24/15 20:26** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	63.3	1.0	240	0.08551	**26**	0	92.9				
Arsenic	160	1.0	196	0.0782	**81**	71.4	105.1				
Boron	109	2.1	129	0	**84**	59.5	106.2				
Cadmium	94.8	1.0	99	0	**96**	73.9	106.1				
Chromium	104	1.0	117	0.1219	**89**	73.5	108.5				
Cobalt	101	1.0	108	0	**94**	74.2	105.6				
Lead	104	1.0	105	0	**100**	74.4	108.6				
Molybdenum	115	1.0	127	0	**90**	66.5	103.1				
Selenium	179	1.0	205	0	**87**	71.2	110.2				
Silver	41.3	1.0	42.1	0.2241	**97**	70.8	111.9				
Uranium	97.7	1.0	99.9	0	**98**	80.1	120.1				

Associated samples: **H15090206-020A, H15090206-023A, H15090206-026A, H15090206-029A, H15090206-032A, H15090206-035A, H15090206-038A, H15090206-041A, H15090206-044A, H15090206-047A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30567

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150924B: 60** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30567** Method: **SW6020**

Analysis Date: **09/24/15 20:29** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	52.8	1.0	50.15	0.08551	105	80	120				
Arsenic	46.6	1.0	50.15	0.0782	93	80	120				
Boron	49.1	2.2	50.15	0	98	80	120				
Cadmium	25.6	1.0	25.08	0	102	80	120				
Chromium	46.3	1.0	50.15	0.1219	92	80	120				
Cobalt	46.5	1.0	50.15	0	93	80	120				
Lead	50.5	1.0	50.15	0	101	80	120				
Molybdenum	50.0	1.0	50.15	0	100	80	120				
Selenium	44.8	1.0	50.15	0	89	80	120				
Silver	25.6	1.0	25.08	0.2241	101	80	120				
Uranium	51.4	1.0	50.15	0	102	80	120				

Associated samples: **H15090206-020A, H15090206-023A, H15090206-026A, H15090206-029A, H15090206-032A, H15090206-035A, H15090206-038A, H15090206-041A, H15090206-044A, H15090206-047A**

Run ID :Run Order: **ICPMS204-B_150924B: 76** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090206-047APDS** Method: **SW6020**

Analysis Date: **09/24/15 21:20** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	622	1.0	613.8	0.2954	101	75	125				
Arsenic	559	1.0	613.8	7.415	90	75	125				
Boron	543	2.7	613.8	0	88	75	125				
Cadmium	290	1.0	306.9	0.8128	94	75	125				
Chromium	554	1.0	613.8	11.42	88	75	125				
Cobalt	529	1.0	613.8	3.136	86	75	125				
Lead	632	1.0	613.8	42.26	96	75	125				
Molybdenum	600	1.0	613.8	0.817	98	75	125				
Selenium	531	1.0	613.8	0	86	75	125				
Silver	159	1.0	306.9	2.353	51	75	125				S
Uranium	608	1.0	613.8	1.415	99	75	125				

Associated samples: **H15090206-020A, H15090206-023A, H15090206-026A, H15090206-029A, H15090206-032A, H15090206-035A, H15090206-038A, H15090206-041A, H15090206-044A, H15090206-047A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30567

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150924B: 77** SampType: **Sample Matrix Spike** Lab ID: **H15090206-047AMS** Method: **SW6020**

Analysis Date: **09/24/15 21:23** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	41.3	1.0	59.99	0.2954	68	75	125				S
Arsenic	61.8	1.0	59.99	7.415	91	75	125				
Boron	59.0	2.6	59.99	0	98	75	125				
Cadmium	30.3	1.0	30	0.8128	98	75	125				
Chromium	64.1	1.0	59.99	11.42	88	75	125				
Cobalt	56.4	1.0	59.99	3.136	89	75	125				
Lead	81.9	1.0	59.99	42.26	66	75	125				S
Molybdenum	57.5	1.0	59.99	0.817	94	75	125				
Selenium	55.1	1.0	59.99	0	92	75	125				
Silver	29.3	1.0	30	2.353	90	75	125				
Uranium	63.3	1.0	59.99	1.415	103	75	125				

Associated samples: **H15090206-020A, H15090206-023A, H15090206-026A, H15090206-029A, H15090206-032A, H15090206-035A, H15090206-038A, H15090206-041A, H15090206-044A, H15090206-047A**

Run ID :Run Order: **ICPMS204-B_150924B: 78** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-047AMSD** Method: **SW6020**

Analysis Date: **09/24/15 21:26** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	42.2	1.0	62.27	0.2954	67	75	125	41.29	2.3	20	S
Arsenic	94.6	1.0	62.27	7.415	140	75	125	61.79	42	20	SR
Boron	61.7	2.7	62.27	0	99	75	125	59.01	4.5	20	
Cadmium	32.1	1.0	31.13	0.8128	100	75	125	30.35	5.5	20	
Chromium	67.5	1.0	62.27	11.42	90	75	125	64.07	5.2	20	
Cobalt	60.1	1.0	62.27	3.136	92	75	125	56.39	6.4	20	
Lead	157	1.0	62.27	42.26	184	75	125	81.89	63	20	SR
Molybdenum	60.7	1.0	62.27	0.817	96	75	125	57.49	5.5	20	
Selenium	58.7	1.0	62.27	0	94	75	125	55.1	6.3	20	
Silver	31.9	1.0	31.13	2.353	95	75	125	29.34	8.2	20	
Uranium	65.5	1.0	62.27	1.415	103	75	125	63.29	3.4	20	

Associated samples: **H15090206-020A, H15090206-023A, H15090206-026A, H15090206-029A, H15090206-032A, H15090206-035A, H15090206-038A, H15090206-041A, H15090206-044A, H15090206-047A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30567

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 126** SampType: **Method Blank** Lab ID: **MB-30567** Method: **SW6020**

Analysis Date: **09/25/15 17:39** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.10	0.05									
Boron	ND	2									
Cadmium	ND	0.2									
Chromium	0.1	0.04									
Cobalt	ND	0.04									
Lead	ND	0.10									
Molybdenum	ND	0.09									
Selenium	ND	0.2									
Silver	0.1	0.05									
Uranium	ND	0.06									

Associated samples: **H15090206-020A, H15090206-023A, H15090206-026A, H15090206-029A, H15090206-032A, H15090206-035A, H15090206-038A, H15090206-041A, H15090206-044A, H15090206-047A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30568

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150920A: 128** SampType: **Method Blank** Lab ID: **MB-30568** Method: **SW6010B**

Analysis Date: **09/21/15 02:23** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1	0.3									
Barium	0.07	0.02									
Beryllium	ND	0.009									
Copper	ND	0.2									
Iron	7	0.6									
Manganese	ND	0.02									
Nickel	ND	0.07									
Vanadium	ND	0.2									
Zinc	0.4	0.10									

Associated samples: **H15090206-021A, H15090206-024A, H15090206-027A, H15090206-030A, H15090206-033A, H15090206-036A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

Run ID :Run Order: **ICP2-HE_150920A: 129** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30568** Method: **SW6010B**

Analysis Date: **09/21/15 02:27** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	261	5.0	242.9	1.266	**107**	80	120				
Barium	51.0	1.0	48.57	0.06832	**105**	80	120				
Beryllium	25.5	1.0	24.29	0	**105**	80	120				
Copper	50.8	1.0	48.57	0	**105**	80	120				
Iron	261	5.0	242.9	6.557	**105**	80	120				
Manganese	246	1.0	242.9	0	**101**	80	120				
Nickel	49.5	1.0	48.57	0	**102**	80	120				
Vanadium	49.7	1.0	48.57	0	**102**	80	120				
Zinc	49.2	1.0	48.57	0.4265	**100**	80	120				

Associated samples: **H15090206-021A, H15090206-024A, H15090206-027A, H15090206-030A, H15090206-033A, H15090206-036A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

Run ID :Run Order: **ICP2-HE_150920A: 130** SampType: **Laboratory Control Sample** Lab ID: **LCS-30568** Method: **SW6010B**

Analysis Date: **09/21/15 02:31** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9270	5.0	9830	1.266	**94**	46.3	130.2				
Barium	172	1.0	187	0.06832	**92**	78.6	112.8				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30568

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150920A: 130** SampType: **Laboratory Control Sample** Lab ID: **LCS-30568** Method: **SW6010B**

Analysis Date: **09/21/15 02:31** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	80.2	1.0	83.6	0	96	76.2	108				
Copper	123	1.1	137	0	90	76.6	108.8				
Iron	15900	5.0	16300	6.557	97	51.7	131.9				
Manganese	412	1.0	434	0	95	81.1	116.6				
Nickel	78.4	1.0	86.2	0	91	72.3	105				
Vanadium	106	1.0	114	0	93	67	107				
Zinc	238	1.0	231	0.4265	103	75.3	111.7				

Associated samples: **H15090206-021A, H15090206-024A, H15090206-027A, H15090206-030A, H15090206-033A, H15090206-036A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

Run ID :Run Order: **ICP2-HE_150921B: 38** SampType: **Method Blank** Lab ID: **MB-30568** Method: **SW6010B**

Analysis Date: **09/21/15 15:47** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1.0	0.7									
Barium	0.08	0.02									
Beryllium	ND	0.009									
Copper	ND	0.2									
Iron	7	0.6									
Manganese	0.1	0.02									
Nickel	ND	0.07									
Vanadium	ND	0.2									
Zinc	0.5	0.10									

Associated samples: **H15090206-021A, H15090206-024A, H15090206-027A, H15090206-030A, H15090206-033A, H15090206-036A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

Run ID :Run Order: **ICP2-HE_150921B: 49** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090206-048APDS** Method: **SW6010B**

Analysis Date: **09/21/15 16:28** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	6470	5.0	1671	4769	101	75	125				
Barium	451	1.0	334.3	131.2	96	75	125				
Beryllium	161	1.0	167.1	0.2382	96	75	125				
Copper	346	1.5	334.3	24.97	96	75	125				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30568

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150921B: 49** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090206-048APDS** Method: **SW6010B**

Analysis Date: **09/21/15 16:28** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	7880	5.0	1671	6360	91	75	125				
Manganese	1960	1.0	1671	376.2	95	75	125				
Nickel	314	1.0	334.3	4.029	93	75	125				
Vanadium	332	1.0	334.3	12.96	95	75	125				
Zinc	453	1.0	334.3	126.5	98	75	125				

Associated samples: **H15090206-021A, H15090206-024A, H15090206-027A, H15090206-030A, H15090206-033A, H15090206-036A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

Run ID :Run Order: **ICP2-HE_150921B: 50** SampType: **Sample Matrix Spike** Lab ID: **H15090206-048AMS** Method: **SW6010B**

Analysis Date: **09/21/15 16:31** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	6670	5.0	325.5	4769		75	125				A
Barium	206	1.0	65.1	131.2	115	75	125				
Beryllium	34.2	1.0	32.55	0.2382	104	75	125				
Copper	119	1.4	65.1	24.97	145	75	125				S
Iron	8230	5.0	325.5	6360		75	125				A
Manganese	719	1.0	325.5	376.2	105	75	125				
Nickel	70.0	1.0	65.1	4.029	101	75	125				
Vanadium	84.4	1.0	65.1	12.96	110	75	125				
Zinc	200	1.0	65.1	126.5	112	75	125				

Associated samples: **H15090206-021A, H15090206-024A, H15090206-027A, H15090206-030A, H15090206-033A, H15090206-036A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

- S= Spike recovery outside of QC advisory limits. The recovery in he Laboratory Control Sample was within QC advisory limits. This suggests that the Matrix Spike recover is due to matrix interference.

Run ID :Run Order: **ICP2-HE_150921B: 55** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-048AMSD** Method: **SW6010B**

Analysis Date: **09/21/15 17:47** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	6770	5.0	328.4	4769		75	125	6671	1.4	20	A
Barium	226	1.0	65.69	131.2	145	75	125	205.9	9.5	20	S
Beryllium	33.5	1.0	32.84	0.2382	101	75	125	34.16	2.0	20	
Copper	96.1	1.4	65.69	24.97	108	75	125	119.4	22	20	R
Iron	7880	5.0	328.4	6360		75	125	8226	4.3	20	A

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30568

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150921B: 55** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-048AMSD** Method: **SW6010B**

Analysis Date: **09/21/15 17:47** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	652	1.0	328.4	376.2	84	75	125	719.3	9.8	20	
Nickel	67.5	1.0	65.69	4.029	97	75	125	69.95	3.5	20	
Vanadium	80.0	1.0	65.69	12.96	102	75	125	84.4	5.4	20	
Zinc	190	1.0	65.69	126.5	97	75	125	199.7	4.7	20	

Associated samples: **H15090206-021A, H15090206-024A, H15090206-027A, H15090206-030A, H15090206-033A, H15090206-036A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

- S= Spike recovery outside of QC advisory limits. The recovery in he Laboratory Control Sample was within QC advisory limits. This suggests that the Matrix Spike recover is due to matrix interference.

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30568

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150924B: 82** SampType: **Method Blank** Lab ID: **MB-30568** Method: **SW6020**

Analysis Date: **09/24/15 21:39** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.1	0.08									
Arsenic	0.1	0.05									
Boron	ND	2									
Cadmium	ND	0.2									
Chromium	0.1	0.04									
Cobalt	0.05	0.04									
Lead	0.1	0.10									
Molybdenum	ND	0.10									
Selenium	ND	0.2									
Silver	0.2	0.06									
Uranium	ND	0.06									

Associated samples: **H15090206-021A, H15090206-024A, H15090206-027A, H15090206-030A, H15090206-033A, H15090206-036A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

Run ID :Run Order: **ICPMS204-B_150924B: 83** SampType: **Laboratory Control Sample** Lab ID: **LCS-30568** Method: **SW6020**

Analysis Date: **09/24/15 21:43** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	60.1	1.0	240	0.1109	**25**	0	92.9				
Arsenic	158	1.0	196	0.1164	**81**	71.4	105.1				
Boron	105	2.1	129	0	**81**	59.5	106.2				
Cadmium	94.7	1.0	99	0	**96**	73.9	106.1				
Chromium	101	1.0	117	0.13	**86**	73.5	108.5				
Cobalt	98.6	1.0	108	0.04534	**91**	74.2	105.6				
Lead	101	1.0	105	0.1366	**96**	74.4	108.6				
Molybdenum	110	1.0	127	0	**87**	66.5	103.1				
Selenium	185	1.0	205	0	**90**	71.2	110.2				
Silver	40.1	1.0	42.1	0.2197	**95**	70.8	111.9				
Uranium	96.8	1.0	99.9	0	**97**	80.1	120.1				

Associated samples: **H15090206-021A, H15090206-024A, H15090206-027A, H15090206-030A, H15090206-033A, H15090206-036A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30568

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150924B: 84** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30568** Method: **SW6020**

Analysis Date: **09/24/15 21:46** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	51.1	1.0	48.57	0.1109	105	80	120				
Arsenic	46.7	1.0	48.57	0.1164	96	80	120				
Boron	47.5	2.1	48.57	0	98	80	120				
Cadmium	25.1	1.0	24.29	0	103	80	120				
Chromium	44.9	1.0	48.57	0.13	92	80	120				
Cobalt	44.8	1.0	48.57	0.04534	92	80	120				
Lead	49.0	1.0	48.57	0.1366	101	80	120				
Molybdenum	47.6	1.0	48.57	0	98	80	120				
Selenium	47.1	1.0	48.57	0	97	80	120				
Silver	24.3	1.0	24.29	0.2197	99	80	120				
Uranium	49.6	1.0	48.57	0	102	80	120				

Associated samples: **H15090206-021A, H15090206-024A, H15090206-027A, H15090206-030A, H15090206-033A, H15090206-036A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

Run ID :Run Order: **ICPMS204-B_150924B: 100** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090206-048APDS** Method: **SW6020**

Analysis Date: **09/24/15 22:37** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	656	1.0	649.1	0.4138	101	75	125				
Arsenic	585	1.0	649.1	6.386	89	75	125				
Boron	561	2.8	649.1	0	86	75	125				
Cadmium	303	1.0	324.5	0.4138	93	75	125				
Chromium	566	1.0	649.1	6.951	86	75	125				
Cobalt	549	1.0	649.1	2.272	84	75	125				
Lead	632	1.0	649.1	17.83	95	75	125				
Molybdenum	629	1.0	649.1	0.3859	97	75	125				
Selenium	563	1.0	649.1	0.2501	87	75	125				
Silver	180	1.0	324.5	0.08281	56	75	125				S
Uranium	631	1.0	649.1	1.036	97	75	125				

Associated samples: **H15090206-021A, H15090206-024A, H15090206-027A, H15090206-030A, H15090206-033A, H15090206-036A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30568

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 140** SampType: **Method Blank** Lab ID: **MB-30568** Method: **SW6020**

Analysis Date: **09/25/15 18:16** Units: **mg/kg** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.10	0.05									
Boron	ND	2									
Cadmium	ND	0.2									
Chromium	0.1	0.04									
Cobalt	ND	0.04									
Lead	ND	0.10									
Molybdenum	ND	0.10									
Selenium	ND	0.2									
Silver	0.1	0.06									
Uranium	ND	0.06									

Associated samples: **H15090206-021A, H15090206-024A, H15090206-027A, H15090206-030A, H15090206-033A, H15090206-036A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

Run ID :Run Order: **ICPMS204-B_150925B: 151** SampType: **Sample Matrix Spike** Lab ID: **H15090206-048AMS** Method: **SW6020**

Analysis Date: **09/25/15 18:45** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	46.5	1.0	65.1	0.3721	71	75	125				S
Arsenic	75.3	1.0	65.1	6.575	106	75	125				
Boron	66.4	2.8	65.1	0	102	75	125				
Cadmium	32.3	1.0	32.55	0.3727	98	75	125				
Chromium	75.6	1.0	65.1	7.632	104	75	125				
Cobalt	67.8	1.0	65.1	2.375	101	75	125				
Lead	79.5	1.0	65.1	17.48	95	75	125				
Molybdenum	63.0	1.0	65.1	0.3773	96	75	125				
Selenium	63.8	1.0	65.1	0.3022	98	75	125				
Silver	31.7	1.0	32.55	0	97	75	125				
Uranium	62.1	1.0	65.1	0.9508	94	75	125				

Associated samples: **H15090206-021A, H15090206-024A, H15090206-027A, H15090206-030A, H15090206-033A, H15090206-036A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30568

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 152** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-048AMSD** Method: **SW6020**

Analysis Date: **09/25/15 18:48** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/17/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	45.7	1.0	65.69	0.3721	69	75	125	46.47	1.6	20	S
Arsenic	70.5	1.0	65.69	6.575	97	75	125	75.32	6.6	20	
Boron	69.0	2.8	65.69	0	105	75	125	66.4	3.9	20	
Cadmium	31.9	1.0	32.84	0.3727	96	75	125	32.33	1.2	20	
Chromium	74.8	1.0	65.69	7.632	102	75	125	75.64	1.1	20	
Cobalt	67.8	1.0	65.69	2.375	100	75	125	67.83	0.1	20	
Lead	76.7	1.0	65.69	17.48	90	75	125	79.48	3.6	20	
Molybdenum	62.6	1.0	65.69	0.3773	95	75	125	62.99	0.6	20	
Selenium	63.7	1.0	65.69	0.3022	96	75	125	63.84	0.3	20	
Silver	31.7	1.0	32.84	0	97	75	125	31.68	0.2	20	
Uranium	59.7	1.0	65.69	0.9508	89	75	125	62.08	3.9	20	

Associated samples: **H15090206-021A, H15090206-024A, H15090206-027A, H15090206-030A, H15090206-033A, H15090206-036A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30587

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150923C: 68** SampType: **Method Blank** Lab ID: **MB-30587** Method: **SW6010B**

Analysis Date: **09/23/15 23:08** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2	0.7									
Barium	0.2	0.02									
Beryllium	ND	0.009									
Copper	ND	0.2									
Iron	20	0.6									
Manganese	0.3	0.02									
Nickel	ND	0.07									
Vanadium	ND	0.2									
Zinc	0.4	0.10									

Associated samples: **H15090206-049A, H15090206-052A, H15090206-055A, H15090206-058A, H15090206-061A, H15090206-064A**

Run ID :Run Order: **ICP2-HE_150923C: 69** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30587** Method: **SW6010B**

Analysis Date: **09/23/15 23:12** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	250	5.0	250	1.735	99	80	120				
Barium	49.9	1.0	50	0.1546	100	80	120				
Beryllium	24.8	1.0	25	0	99	80	120				
Copper	50.0	1.0	50	0	100	80	120				
Iron	252	5.0	250	21.08	92	80	120				
Manganese	251	1.0	250	0.2726	100	80	120				
Nickel	48.2	1.0	50	0	96	80	120				
Vanadium	49.9	1.0	50	0	100	80	120				
Zinc	49.0	1.0	50	0.4377	97	80	120				

Associated samples: **H15090206-049A, H15090206-052A, H15090206-055A, H15090206-058A, H15090206-061A, H15090206-064A**

Run ID :Run Order: **ICP2-HE_150923C: 72** SampType: **Laboratory Control Sample** Lab ID: **LCS-30587** Method: **SW6010B**

Analysis Date: **09/23/15 23:23** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9230	5.0	9830	1.735	94	46.3	130.2				
Barium	179	1.0	187	0.1546	95	78.6	112.8				
Beryllium	82.0	1.0	83.6	0	98	76.2	108				
Copper	126	1.1	137	0	92	76.6	108.8				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30587

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150923C: 72** SampType: **Laboratory Control Sample** Lab ID: **LCS-30587** Method: **SW6010B**

Analysis Date: **09/23/15 23:23** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	16800	5.0	16300	21.08	103	51.7	131.9				
Manganese	466	1.0	434	0.2726	107	81.1	116.6				
Nickel	78.9	1.0	86.2	0	92	72.3	105				
Vanadium	113	1.0	114	0	99	67	107				
Zinc	245	1.0	231	0.4377	106	75.3	111.7				

Associated samples: **H15090206-049A, H15090206-052A, H15090206-055A, H15090206-058A, H15090206-061A, H15090206-064A**

Run ID :Run Order: **ICP2-HE_150923C: 80** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090206-064APDS** Method: **SW6010B**

Analysis Date: **09/23/15 23:52** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	25600	9.1	3431	21670		75	125				A
Barium	989	1.0	686.1	330.4	96	75	125				
Beryllium	316	1.0	343.1	1.318	92	75	125				
Copper	1350	3.0	686.1	674.3	99	75	125				
Iron	41700	8.1	3431	37820		75	125				A
Manganese	6340	1.0	3431	2933	99	75	125				
Nickel	677	1.0	686.1	26.82	95	75	125				
Vanadium	751	2.0	686.1	88.77	96	75	125				
Zinc	3480	1.3	686.1	2783		75	125				A

Associated samples: **H15090206-049A, H15090206-052A, H15090206-055A, H15090206-058A, H15090206-061A, H15090206-064A**

Run ID :Run Order: **ICP2-HE_150923C: 81** SampType: **Sample Matrix Spike** Lab ID: **H15090206-064AMS** Method: **SW6010B**

Analysis Date: **09/23/15 23:56** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	27500	8.9	666.2	21670		75	125				A
Barium	478	1.0	133.2	330.4	111	75	125				
Beryllium	64.5	1.0	66.62	1.318	95	75	125				
Copper	792	2.9	133.2	674.3		75	125				A
Iron	39300	7.8	666.2	37820		75	125				A
Manganese	3450	1.0	666.2	2933		75	125				A
Nickel	154	1.0	133.2	26.82	95	75	125				
Vanadium	222	2.0	133.2	88.77	100	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30587

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150923C: 81** SampType: **Sample Matrix Spike** Lab ID: **H15090206-064AMS** Method: **SW6010B**

Analysis Date: **09/23/15 23:56** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	2860	1.2	133.2	2783		75	125				A

Associated samples: **H15090206-049A, H15090206-052A, H15090206-055A, H15090206-058A, H15090206-061A, H15090206-064A**

Run ID :Run Order: **ICP2-HE_150923C: 91** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-064AMSD** Method: **SW6010B**

Analysis Date: **09/24/15 00:33** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	30100	8.9	671.6	21670		75	125	27470	9.2	20	A
Barium	503	1.0	134.3	330.4	129	75	125	478.3	5.1	20	S
Beryllium	68.6	1.0	67.16	1.318	100	75	125	64.47	6.2	20	
Copper	808	3.0	134.3	674.3		75	125	791.7	2.1	20	A
Iron	40800	7.9	671.6	37820		75	125	39270	3.9	20	A
Manganese	3320	1.0	671.6	2933		75	125	3452	3.9	20	A
Nickel	162	1.0	134.3	26.82	100	75	125	153.6	5.1	20	
Vanadium	228	2.0	134.3	88.77	103	75	125	221.7	2.7	20	
Zinc	2940	1.3	134.3	2783		75	125	2859	3.0	20	A

Associated samples: **H15090206-049A, H15090206-052A, H15090206-055A, H15090206-058A, H15090206-061A, H15090206-064A**

- S= Spike recovery outside of QC advisory limits. The recovery in he Laboratory Control Sample was within QC advisory limits. This suggests that the Matrix Spike recover is due to matrix interference.

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30587

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 63** SampType: **Method Blank** Lab ID: **MB-30587** Method: **SW6020**

Analysis Date: **09/25/15 13:43** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.2	0.08									
Arsenic	0.06	0.05									
Boron	ND	2									
Cadmium	ND	0.2									
Chromium	0.1	0.04									
Cobalt	ND	0.04									
Lead	ND	0.10									
Molybdenum	ND	0.10									
Selenium	ND	0.2									
Silver	0.3	0.06									
Uranium	ND	0.06									

Associated samples: **H15090206-049A, H15090206-052A, H15090206-055A, H15090206-058A, H15090206-061A, H15090206-064A**

Run ID :Run Order: **ICPMS204-B_150925B: 64** SampType: **Laboratory Control Sample** Lab ID: **LCS-30587** Method: **SW6020**

Analysis Date: **09/25/15 13:46** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	62.8	1.0	240	0.2309	**26**	0	92.9				
Arsenic	162	1.0	196	0.05803	**82**	71.4	105.1				
Boron	106	2.2	129	0	**82**	59.5	106.2				
Cadmium	90.4	1.0	99	0	**91**	73.9	106.1				
Chromium	107	1.0	117	0.1159	**91**	73.5	108.5				
Cobalt	103	1.0	108	0	**96**	74.2	105.6				
Lead	103	1.0	105	0	**98**	74.4	108.6				
Molybdenum	109	1.0	127	0	**86**	66.5	103.1				
Selenium	189	1.0	205	0	**92**	71.2	110.2				
Silver	38.7	1.0	42.1	0.2644	**91**	70.8	111.9				
Uranium	91.2	1.0	99.9	0	**91**	80.1	120.1				

Associated samples: **H15090206-049A, H15090206-052A, H15090206-055A, H15090206-058A, H15090206-061A, H15090206-064A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30587

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 65** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30587** Method: **SW6020**

Analysis Date: **09/25/15 13:48** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	49.9	1.0	50	0.2309	99	80	120				
Arsenic	48.0	1.0	50	0.05803	96	80	120				
Boron	49.8	2.2	50	0	100	80	120				
Cadmium	24.2	1.0	25	0	97	80	120				
Chromium	48.1	1.0	50	0.1159	96	80	120				
Cobalt	48.2	1.0	50	0	96	80	120				
Lead	48.3	1.0	50	0	97	80	120				
Molybdenum	48.7	1.0	50	0	97	80	120				
Selenium	47.7	1.0	50	0	95	80	120				
Silver	24.3	1.0	25	0.2644	96	80	120				
Uranium	49.7	1.0	50	0	99	80	120				

Associated samples: **H15090206-049A, H15090206-052A, H15090206-055A, H15090206-058A, H15090206-061A, H15090206-064A**

Run ID :Run Order: **ICPMS204-B_150925B: 74** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090206-064APDS** Method: **SW6020**

Analysis Date: **09/25/15 14:12** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	1280	1.0	1332	1.029	96	75	125				
Arsenic	1260	1.0	1332	79.2	89	75	125				
Boron	1180	5.8	1332	7.136	88	75	125				
Cadmium	601	1.0	666.1	13.16	88	75	125				
Chromium	1260	1.0	1332	46.6	91	75	125				
Cobalt	1200	1.0	1332	18.12	89	75	125				
Lead	1480	1.0	1332	274.1	91	75	125				
Molybdenum	1270	1.0	1332	4.189	95	75	125				
Selenium	1150	1.0	1332	1.691	86	75	125				
Silver	412	1.0	666.1	2.69	61	75	125				S
Uranium	1250	1.0	1332	4.347	93	75	125				

Associated samples: **H15090206-049A, H15090206-052A, H15090206-055A, H15090206-058A, H15090206-061A, H15090206-064A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30587

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 75** SampType: **Sample Matrix Spike** Lab ID: **H15090206-064AMS** Method: **SW6020**

Analysis Date: **09/25/15 14:14** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	54.6	1.0	133.2	1.029	40	75	125				S
Arsenic	201	1.0	133.2	79.2	92	75	125				
Boron	143	5.8	133.2	7.136	102	75	125				
Cadmium	73.9	1.0	66.62	13.16	91	75	125				
Chromium	179	1.0	133.2	46.6	99	75	125				
Cobalt	141	1.0	133.2	18.12	93	75	125				
Lead	391	1.0	133.2	274.1	88	75	125				
Molybdenum	127	1.0	133.2	4.189	92	75	125				
Selenium	122	1.0	133.2	1.691	90	75	125				
Silver	64.4	1.0	66.62	2.69	93	75	125				
Uranium	132	1.0	133.2	4.347	96	75	125				

Associated samples: **H15090206-049A, H15090206-052A, H15090206-055A, H15090206-058A, H15090206-061A, H15090206-064A**

Run ID :Run Order: **ICPMS204-B_150925B: 76** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-064AMSD** Method: **SW6020**

Analysis Date: **09/25/15 14:17** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	56.4	1.0	134.3	1.029	41	75	125	54.59	3.2	20	S
Arsenic	208	1.0	134.3	79.2	96	75	125	201.3	3.5	20	
Boron	138	5.8	134.3	7.136	98	75	125	142.7	3.2	20	
Cadmium	77.4	1.0	67.16	13.16	96	75	125	73.95	4.6	20	
Chromium	180	1.0	134.3	46.6	99	75	125	178.8	0.4	20	
Cobalt	147	1.0	134.3	18.12	96	75	125	141.4	3.7	20	
Lead	404	1.0	134.3	274.1	96	75	125	390.7	3.3	20	
Molybdenum	132	1.0	134.3	4.189	95	75	125	126.7	4.4	20	
Selenium	128	1.0	134.3	1.691	94	75	125	122	5.1	20	
Silver	67.6	1.0	67.16	2.69	97	75	125	64.42	4.8	20	
Uranium	136	1.0	134.3	4.347	98	75	125	131.7	3.5	20	

Associated samples: **H15090206-049A, H15090206-052A, H15090206-055A, H15090206-058A, H15090206-061A, H15090206-064A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30587

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150928A: 15** SampType: **Method Blank** Lab ID: **MB-30587** Method: **SW6020**

Analysis Date: **09/29/15 01:13** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.1	0.08									
Arsenic	0.1	0.05									
Boron	ND	2									
Cadmium	ND	0.2									
Chromium	0.1	0.04									
Cobalt	ND	0.04									
Lead	ND	0.10									
Molybdenum	ND	0.10									
Selenium	ND	0.2									
Silver	ND	0.06									
Uranium	ND	0.06									

Associated samples: **H15090206-049A, H15090206-052A, H15090206-055A, H15090206-058A, H15090206-061A, H15090206-064A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30588

Date: *23-Oct-15*

Run ID :Run Order: **HGCV201-H_150921A: 25** SampType: **Method Blank** Lab ID: **MB-30588** Method: **SW7471B**
Analysis Date: **09/21/15 15:40** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.010									

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A**

Run ID :Run Order: **HGCV201-H_150921A: 26** SampType: **Laboratory Control Sample** Lab ID: **LCS-30588** Method: **SW7471B**
Analysis Date: **09/21/15 15:43** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.8	0.50	5	0	116	71	126.4				

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A**

Run ID :Run Order: **HGCV201-H_150921A: 27** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30588** Method: **SW7471B**
Analysis Date: **09/21/15 15:45** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.1	0.50	1	0	109	80	120				

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A**

Run ID :Run Order: **HGCV201-H_150921A: 30** SampType: **Sample Matrix Spike** Lab ID: **H15090357-001AMS** Method: **SW7471B**
Analysis Date: **09/21/15 15:56** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.00	0.50	0.9615	0	104	80	120				

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A**

Run ID :Run Order: **HGCV201-H_150921A: 31** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090357-001AMSD** Method: **SW7471B**
Analysis Date: **09/21/15 15:58** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.0	0.50	0.9615	0	108	80	120	0.9976	3.6	20	

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30588

Date: *23-Oct-15*

Run ID :Run Order: **HGCV201-H_150924B: 43** SampType: **Method Blank** Lab ID: **MB-30588** Method: **SW7471B**
Analysis Date: **09/24/15 14:12** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.010									

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A**

Run ID :Run Order: **HGCV201-H_150924B: 56** SampType: **Sample Matrix Spike** Lab ID: **H15090199-012AMS** Method: **SW7471B**
Analysis Date: **09/24/15 14:46** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.2	0.50	1.228	0.01419	99	80	120				

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A**

Run ID :Run Order: **HGCV201-H_150924B: 57** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-012AMSD** Method: **SW7471B**
Analysis Date: **09/24/15 14:49** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.3	0.50	1.223	0.01419	109	80	120	1.235	8.9	20	

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A**

Run ID :Run Order: **HGCV201-H_151005A: 10** SampType: **Method Blank** Lab ID: **MB-30588** Method: **SW7471B**
Analysis Date: **10/05/15 13:58** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.010									

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30590

Date: *23-Oct-15*

Run ID :Run Order: **HGCV201-H_150928A: 11** SampType: **Method Blank** Lab ID: **MB-30590** Method: **SW7471B**
Analysis Date: **09/28/15 16:56** Units: **mg/kg** **Prep Info:** Prep Date: **9/24/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.01	0.010									

Associated samples: **H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-034A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A**

Run ID :Run Order: **HGCV201-H_150928A: 13** SampType: **Laboratory Control Sample** Lab ID: **LCS-30590** Method: **SW7471B**
Analysis Date: **09/28/15 17:07** Units: **mg/kg** **Prep Info:** Prep Date: **9/24/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.4	0.50	5.081	0	107	71	126.4				

Associated samples: **H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-034A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A**

Run ID :Run Order: **HGCV201-H_150928A: 14** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30590** Method: **SW7471B**
Analysis Date: **09/28/15 17:10** Units: **mg/kg** **Prep Info:** Prep Date: **9/24/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.2	0.50	1	0	120	80	120				

Associated samples: **H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-034A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A**

Run ID :Run Order: **HGCV201-H_150928A: 16** SampType: **Sample Matrix Spike** Lab ID: **H15090206-026AMS** Method: **SW7471B**
Analysis Date: **09/28/15 17:15** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/24/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.9	0.50	1.275	0.6373	97	80	120				

Associated samples: **H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-034A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30590

Date: *23-Oct-15*

Run ID :Run Order: **HGCV201-H_150928A: 17** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-026AMSD** Method: **SW7471B**

Analysis Date: **09/28/15 17:17** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/24/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.1	0.50	1.273	0.6373	114	80	120	1.869	11	20	

Associated samples: **H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-034A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A**

Run ID :Run Order: **HGCV201-H_150928A: 31** SampType: **Sample Matrix Spike** Lab ID: **H15090206-036AMS** Method: **SW7471B**

Analysis Date: **09/28/15 17:52** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.6	0.50	1.308	0.03253	120	80	120				

Associated samples: **H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-034A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A**

Run ID :Run Order: **HGCV201-H_150928A: 32** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-036AMSD** Method: **SW7471B**

Analysis Date: **09/28/15 17:54** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.6	0.50	1.302	0.03253	122	80	120	1.596	1.9	20	S

Associated samples: **H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-034A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30591

Date: *23-Oct-15*

Run ID :Run Order: **HGCV201-H_150924B: 10** SampType: **Method Blank** Lab ID: **MB-30591** Method: **SW7471B**
Analysis Date: **09/24/15 12:43** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.010									

Associated samples: **H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A**

Run ID :Run Order: **HGCV201-H_150924B: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-30591** Method: **SW7471B**
Analysis Date: **09/24/15 12:46** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.6	0.50	5.045	0	112	71	126.4				

Associated samples: **H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A**

Run ID :Run Order: **HGCV201-H_150924B: 12** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30591** Method: **SW7471B**
Analysis Date: **09/24/15 12:49** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.0	0.50	1	0	101	80	120				

Associated samples: **H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A**

Run ID :Run Order: **HGCV201-H_150924B: 14** SampType: **Sample Matrix Spike** Lab ID: **H15090206-044AMS** Method: **SW7471B**
Analysis Date: **09/24/15 12:54** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.5	0.50	1.394	0.09243	103	80	120				

Associated samples: **H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30591

Date: *23-Oct-15*

Run ID :Run Order: **HGCV201-H_150924B: 15** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-044AMSD** Method: **SW7471B**

Analysis Date: **09/24/15 12:56** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.5	0.50	1.394	0.09243	**103**	80	120	1.526	**0.3**	20	

Associated samples: **H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A**

Run ID :Run Order: **HGCV201-H_150924B: 136** SampType: **Sample Matrix Spike** Lab ID: **H15090206-054AMS** Method: **SW7471B**

Analysis Date: **09/24/15 16:03** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.5	0.50	1.112	0.2398	**116**	80	120				

Associated samples: **H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A**

Run ID :Run Order: **HGCV201-H_150924B: 137** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-054AMSD** Method: **SW7471B**

Analysis Date: **09/24/15 16:05** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.5	0.50	1.113	0.2398	**117**	80	120	1.526	**1.3**	20	

Associated samples: **H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30592

Date: *23-Oct-15*

Run ID :Run Order: **HGCV201-H_150924A: 14** SampType: **Method Blank** Lab ID: **MB-30592** Method: **SW7471B**
Analysis Date: **09/24/15 11:12** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.010									

Associated samples: **H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Run ID :Run Order: **HGCV201-H_150924A: 15** SampType: **Laboratory Control Sample** Lab ID: **LCS-30592** Method: **SW7471B**
Analysis Date: **09/24/15 11:14** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	6.2	0.50	5.02	0	123	71	126.4				

Associated samples: **H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Run ID :Run Order: **HGCV201-H_150924A: 16** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30592** Method: **SW7471B**
Analysis Date: **09/24/15 11:17** Units: **mg/kg** **Prep Info:** Prep Date: **9/21/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.0	0.50	1	0	103	80	120				

Associated samples: **H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Run ID :Run Order: **HGCV201-H_150924A: 18** SampType: **Sample Matrix Spike** Lab ID: **H15090398-001AMS** Method: **SW7471B**
Analysis Date: **09/24/15 11:22** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.0	0.50	0.9443	0.0135	107	80	120				

Associated samples: **H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Run ID :Run Order: **HGCV201-H_150924A: 19** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090398-001AMSD** Method: **SW7471B**
Analysis Date: **09/24/15 11:24** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.0	0.50	0.9443	0.0135	110	80	120	1.028	2.0	20	

Associated samples: **H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30593

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150923C: 92** SampType: **Method Blank** Lab ID: **MB-30593** Method: **SW6010B**

Analysis Date: **09/24/15 00:37** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1	0.3									
Barium	0.09	0.02									
Beryllium	ND	0.009									
Copper	ND	0.2									
Iron	7	0.6									
Manganese	0.10	0.02									
Nickel	ND	0.07									
Vanadium	ND	0.1									
Zinc	0.6	0.09									

Associated samples: **H15090206-050A, H15090206-053A, H15090206-056A, H15090206-059A, H15090206-062A, H15090206-065A**

Run ID :Run Order: **ICP2-HE_150923C: 93** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30593** Method: **SW6010B**

Analysis Date: **09/24/15 00:41** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	255	5.0	250.7	1.443	**101**	80	120				
Barium	49.9	1.0	50.15	0.09313	**99**	80	120				
Beryllium	25.2	1.0	25.07	0	**100**	80	120				
Copper	49.5	1.0	50.15	0	**99**	80	120				
Iron	258	5.0	250.7	7.277	**100**	80	120				
Manganese	246	1.0	250.7	0.09563	**98**	80	120				
Nickel	51.1	1.0	50.15	0	**102**	80	120				
Vanadium	49.9	1.0	50.15	0	**99**	80	120				
Zinc	49.5	1.0	50.15	0.6189	**97**	80	120				

Associated samples: **H15090206-050A, H15090206-053A, H15090206-056A, H15090206-059A, H15090206-062A, H15090206-065A**

Run ID :Run Order: **ICP2-HE_150923C: 94** SampType: **Laboratory Control Sample** Lab ID: **LCS-30593** Method: **SW6010B**

Analysis Date: **09/24/15 00:45** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9150	5.0	9830	1.443	**93**	46.3	130.2				
Barium	166	1.0	187	0.09313	**88**	78.6	112.8				
Beryllium	78.4	1.0	83.6	0	**94**	76.2	108				
Copper	120	1.1	137	0	**88**	76.6	108.8				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30593

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150923C: 94** SampType: **Laboratory Control Sample** Lab ID: **LCS-30593** Method: **SW6010B**

Analysis Date: **09/24/15 00:45** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	15700	5.0	16300	7.277	96	51.7	131.9				
Manganese	405	1.0	434	0.09563	93	81.1	116.6				
Nickel	79.1	1.0	86.2	0	92	72.3	105				
Vanadium	105	1.0	114	0	92	67	107				
Zinc	233	1.0	231	0.6189	101	75.3	111.7				

Associated samples: **H15090206-050A, H15090206-053A, H15090206-056A, H15090206-059A, H15090206-062A, H15090206-065A**

Run ID :Run Order: **ICP2-HE_150923C: 104** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090206-065APDS** Method: **SW6010B**

Analysis Date: **09/24/15 01:22** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4100	5.0	1589	2682	89	75	125				
Barium	362	1.0	317.8	58.19	95	75	125				
Beryllium	151	1.0	158.9	0.1043	95	75	125				
Copper	359	1.4	317.8	55.86	95	75	125				
Iron	6640	5.0	1589	5676	60	75	125				S
Manganese	1640	1.0	1589	190.7	91	75	125				
Nickel	301	1.0	317.8	3.04	94	75	125				
Vanadium	309	1.0	317.8	11.56	94	75	125				
Zinc	507	1.0	317.8	252.6	80	75	125				

Associated samples: **H15090206-050A, H15090206-053A, H15090206-056A, H15090206-059A, H15090206-062A, H15090206-065A**

Run ID :Run Order: **ICP2-HE_150923C: 105** SampType: **Sample Matrix Spike** Lab ID: **H15090206-065AMS** Method: **SW6010B**

Analysis Date: **09/24/15 01:25** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5570	5.0	305.5	2682		75	125				A
Barium	154	1.0	61.1	58.19	156	75	125				S
Beryllium	31.1	1.0	30.55	0.1043	101	75	125				
Copper	145	1.3	61.1	55.86	145	75	125				S
Iron	8230	5.0	305.5	5676		75	125				A
Manganese	621	1.0	305.5	190.7	141	75	125				S
Nickel	62.6	1.0	61.1	3.04	97	75	125				
Vanadium	78.6	1.0	61.1	11.56	110	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30593

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150923C: 105** SampType: **Sample Matrix Spike** Lab ID: **H15090206-065AMS** Method: **SW6010B**

Analysis Date: **09/24/15 01:25** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	252	1.0	61.1	252.6		75	125				A

Associated samples: **H15090206-050A, H15090206-053A, H15090206-056A, H15090206-059A, H15090206-062A, H15090206-065A**

- S= Spike recovery outside of QC advisory limits. The recovery in he Laboratory Control Sample was within QC advisory limits. This suggests that the Matrix Spike recover is due to matrix interference.

Run ID :Run Order: **ICP2-HE_150923C: 106** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-065AMSD** Method: **SW6010B**

Analysis Date: **09/24/15 01:29** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5400	5.0	305.6	2682		75	125	5569	3.1	20	A
Barium	157	1.0	61.12	58.19	161	75	125	153.5	1.9	20	S
Beryllium	30.9	1.0	30.56	0.1043	101	75	125	31.06	0.6	20	
Copper	127	1.3	61.12	55.86	116	75	125	144.6	13	20	
Iron	8600	5.0	305.6	5676		75	125	8226	4.4	20	A
Manganese	600	1.0	305.6	190.7	134	75	125	621.4	3.4	20	S
Nickel	62.6	1.0	61.12	3.04	97	75	125	62.61	0.0	20	
Vanadium	80.3	1.0	61.12	11.56	112	75	125	78.57	2.1	20	
Zinc	262	1.0	61.12	252.6		75	125	251.7	4.2	20	A

Associated samples: **H15090206-050A, H15090206-053A, H15090206-056A, H15090206-059A, H15090206-062A, H15090206-065A**

- S= Spike recovery outside of QC advisory limits. The recovery in he Laboratory Control Sample was within QC advisory limits. This suggests that the Matrix Spike recover is due to matrix interference.

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30593

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 39** SampType: **Method Blank** Lab ID: **MB-30593** Method: **SW6020**

Analysis Date: **09/25/15 12:26** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.06	0.05									
Boron	ND	2									
Cadmium	ND	0.2									
Chromium	0.1	0.04									
Cobalt	ND	0.04									
Lead	ND	0.10									
Molybdenum	ND	0.09									
Selenium	ND	0.2									
Silver	ND	0.05									
Uranium	ND	0.06									

Associated samples: **H15090206-050A, H15090206-053A, H15090206-056A, H15090206-059A, H15090206-062A, H15090206-065A**

Run ID :Run Order: **ICPMS204-B_150925B: 40** SampType: **Laboratory Control Sample** Lab ID: **LCS-30593** Method: **SW6020**

Analysis Date: **09/25/15 12:29** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	59.0	1.0	240	0	**25**	0	92.9				
Arsenic	161	1.0	196	0.06214	**82**	71.4	105.1				
Boron	109	2.2	129	0	**84**	59.5	106.2				
Cadmium	90.8	1.0	99	0	**92**	73.9	106.1				
Chromium	107	1.0	117	0.1082	**91**	73.5	108.5				
Cobalt	105	1.0	108	0	**97**	74.2	105.6				
Lead	99.1	1.0	105	0	**94**	74.4	108.6				
Molybdenum	110	1.0	127	0	**87**	66.5	103.1				
Selenium	188	1.0	205	0	**92**	71.2	110.2				
Silver	38.7	1.0	42.1	0	**92**	70.8	111.9				
Uranium	93.3	1.0	99.9	0	**93**	80.1	120.1				

Associated samples: **H15090206-050A, H15090206-053A, H15090206-056A, H15090206-059A, H15090206-062A, H15090206-065A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30593

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 41** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30593** Method: **SW6020**

Analysis Date: **09/25/15 12:31** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	49.7	1.0	50.15	0	99	80	120				
Arsenic	48.0	1.0	50.15	0.06214	96	80	120				
Boron	49.9	2.2	50.15	0	100	80	120				
Cadmium	24.3	1.0	25.07	0	97	80	120				
Chromium	48.8	1.0	50.15	0.1082	97	80	120				
Cobalt	49.1	1.0	50.15	0	98	80	120				
Lead	49.1	1.0	50.15	0	98	80	120				
Molybdenum	49.1	1.0	50.15	0	98	80	120				
Selenium	48.6	1.0	50.15	0	97	80	120				
Silver	24.5	1.0	25.07	0	98	80	120				
Uranium	50.3	1.0	50.15	0	100	80	120				

Associated samples: **H15090206-050A, H15090206-053A, H15090206-056A, H15090206-059A, H15090206-062A, H15090206-065A**

Run ID :Run Order: **ICPMS204-B_150925B: 52** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090206-065APDS** Method: **SW6020**

Analysis Date: **09/25/15 13:00** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	588	1.0	617.1	0.3916	95	75	125				
Arsenic	575	1.0	617.1	14.91	91	75	125				
Boron	553	2.7	617.1	0	90	75	125				
Cadmium	281	1.0	308.5	0.6214	91	75	125				
Chromium	581	1.0	617.1	5.13	93	75	125				
Cobalt	565	1.0	617.1	2.063	91	75	125				
Lead	610	1.0	617.1	29.99	94	75	125				
Molybdenum	600	1.0	617.1	0.5289	97	75	125				
Selenium	547	1.0	617.1	0	89	75	125				
Silver	212	1.0	308.5	0.9336	68	75	125				S
Uranium	596	1.0	617.1	0.8725	96	75	125				

Associated samples: **H15090206-050A, H15090206-053A, H15090206-056A, H15090206-059A, H15090206-062A, H15090206-065A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30593

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 53** SampType: **Sample Matrix Spike** Lab ID: **H15090206-065AMS** Method: **SW6020**

Analysis Date: **09/25/15 13:03** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	47.1	1.0	61.1	0.3916	76	75	125				
Arsenic	73.1	1.0	61.1	14.91	95	75	125				
Boron	65.4	2.6	61.1	0	107	75	125				
Cadmium	29.5	1.0	30.55	0.6214	95	75	125				
Chromium	66.5	1.0	61.1	5.13	101	75	125				
Cobalt	61.8	1.0	61.1	2.063	98	75	125				
Lead	85.5	1.0	61.1	29.99	91	75	125				
Molybdenum	60.3	1.0	61.1	0.5289	98	75	125				
Selenium	56.9	1.0	61.1	0	93	75	125				
Silver	30.9	1.0	30.55	0.9336	98	75	125				
Uranium	62.7	1.0	61.1	0.8725	101	75	125				

Associated samples: **H15090206-050A, H15090206-053A, H15090206-056A, H15090206-059A, H15090206-062A, H15090206-065A**

Run ID :Run Order: **ICPMS204-B_150925B: 54** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-065AMSD** Method: **SW6020**

Analysis Date: **09/25/15 13:05** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	45.9	1.0	61.12	0.3916	74	75	125	47.12	2.7	20	S
Arsenic	71.6	1.0	61.12	14.91	93	75	125	73.14	2.2	20	
Boron	61.6	2.6	61.12	0	101	75	125	65.44	6.0	20	
Cadmium	29.7	1.0	30.56	0.6214	95	75	125	29.54	0.4	20	
Chromium	66.6	1.0	61.12	5.13	101	75	125	66.54	0.1	20	
Cobalt	61.4	1.0	61.12	2.063	97	75	125	61.78	0.6	20	
Lead	85.1	1.0	61.12	29.99	90	75	125	85.48	0.5	20	
Molybdenum	59.2	1.0	61.12	0.5289	96	75	125	60.34	1.9	20	
Selenium	57.6	1.0	61.12	0	94	75	125	56.94	1.2	20	
Silver	30.0	1.0	30.56	0.9336	95	75	125	30.92	3.1	20	
Uranium	62.2	1.0	61.12	0.8725	100	75	125	62.69	0.8	20	

Associated samples: **H15090206-050A, H15090206-053A, H15090206-056A, H15090206-059A, H15090206-062A, H15090206-065A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30593

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150928A: 22** SampType: **Method Blank** Lab ID: **MB-30593** Method: **SW6020**

Analysis Date: **09/29/15 01:35** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.1	0.05									
Boron	ND	2									
Cadmium	ND	0.2									
Chromium	0.1	0.04									
Cobalt	ND	0.04									
Lead	ND	0.10									
Molybdenum	ND	0.09									
Selenium	ND	0.2									
Silver	ND	0.05									
Uranium	ND	0.06									

Associated samples: **H15090206-050A, H15090206-053A, H15090206-056A, H15090206-059A, H15090206-062A, H15090206-065A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30594

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150923C: 107** SampType: **Method Blank** Lab ID: **MB-30594** Method: **SW6010B**

Analysis Date: **09/24/15 01:33** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1	0.3									
Barium	0.2	0.02									
Beryllium	ND	0.009									
Copper	ND	0.2									
Iron	8	0.6									
Manganese	0.08	0.02									
Nickel	ND	0.07									
Vanadium	ND	0.2									
Zinc	0.5	0.09									

Associated samples: **H15090206-051A, H15090206-054A, H15090206-057A, H15090206-060A, H15090206-063A, H15090206-066A**

Run ID :Run Order: **ICP2-HE_150923C: 108** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30594** Method: **SW6010B**

Analysis Date: **09/24/15 01:37** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	252	5.0	247.3	1.034	**101**	80	120				
Barium	49.2	1.0	49.45	0.1528	**99**	80	120				
Beryllium	24.6	1.0	24.73	0	**100**	80	120				
Copper	49.3	1.0	49.45	0	**100**	80	120				
Iron	264	5.0	247.3	8.065	**104**	80	120				
Manganese	239	1.0	247.3	0.08224	**97**	80	120				
Nickel	48.6	1.0	49.45	0	**98**	80	120				
Vanadium	48.2	1.0	49.45	0	**98**	80	120				
Zinc	47.2	1.0	49.45	0.5133	**94**	80	120				

Associated samples: **H15090206-051A, H15090206-054A, H15090206-057A, H15090206-060A, H15090206-063A, H15090206-066A**

Run ID :Run Order: **ICP2-HE_150923C: 109** SampType: **Laboratory Control Sample** Lab ID: **LCS-30594** Method: **SW6010B**

Analysis Date: **09/24/15 01:40** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9520	5.0	9830	1.034	**97**	46.3	130.2				
Barium	165	1.0	187	0.1528	**88**	78.6	112.8				
Beryllium	78.0	1.0	83.6	0	**93**	76.2	108				
Copper	117	1.1	137	0	**86**	76.6	108.8				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30594

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150923C: 109** SampType: **Laboratory Control Sample** Lab ID: **LCS-30594** Method: **SW6010B**

Analysis Date: **09/24/15 01:40** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	15700	5.0	16300	8.065	96	51.7	131.9				
Manganese	413	1.0	434	0.08224	95	81.1	116.6				
Nickel	76.6	1.0	86.2	0	89	72.3	105				
Vanadium	105	1.0	114	0	92	67	107				
Zinc	230	1.0	231	0.5133	99	75.3	111.7				

Associated samples: **H15090206-051A, H15090206-054A, H15090206-057A, H15090206-060A, H15090206-063A, H15090206-066A**

Run ID :Run Order: **ICP2-HE_150923C: 119** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090206-066APDS** Method: **SW6010B**

Analysis Date: **09/24/15 02:18** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4540	5.0	1636	2925	99	75	125				
Barium	363	1.0	327.2	54.7	94	75	125				
Beryllium	154	1.0	163.6	0.1436	94	75	125				
Copper	362	1.4	327.2	47.98	96	75	125				
Iron	7220	5.0	1636	5646	96	75	125				
Manganese	1750	1.0	1636	217.7	93	75	125				
Nickel	312	1.0	327.2	3.316	94	75	125				
Vanadium	317	1.0	327.2	11.64	93	75	125				
Zinc	407	1.0	327.2	106.7	92	75	125				

Associated samples: **H15090206-051A, H15090206-054A, H15090206-057A, H15090206-060A, H15090206-063A, H15090206-066A**

Run ID :Run Order: **ICP2-HE_150923C: 120** SampType: **Sample Matrix Spike** Lab ID: **H15090206-066AMS** Method: **SW6010B**

Analysis Date: **09/24/15 02:21** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4980	5.0	315.2	2925		75	125				A
Barium	130	1.0	63.05	54.7	119	75	125				
Beryllium	31.7	1.0	31.52	0.1436	100	75	125				
Copper	135	1.4	63.05	47.98	138	75	125				S
Iron	7140	5.0	315.2	5646		75	125				A
Manganese	628	1.0	315.2	217.7	130	75	125				S
Nickel	69.3	1.0	63.05	3.316	105	75	125				
Vanadium	75.3	1.0	63.05	11.64	101	75	125				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30594

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150923C: 120** SampType: **Sample Matrix Spike** Lab ID: **H15090206-066AMS** Method: **SW6010B**

Analysis Date: **09/24/15 02:21** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	226	1.0	63.05	106.7	188	75	125				S

Associated samples: **H15090206-051A, H15090206-054A, H15090206-057A, H15090206-060A, H15090206-063A, H15090206-066A**

- S= Spike recovery outside of QC advisory limits. The recovery in he Laboratory Control Sample was within QC advisory limits. This suggests that the Matrix Spike recover is due to matrix interference.

Run ID :Run Order: **ICP2-HE_150923C: 121** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-066AMSD** Method: **SW6010B**

Analysis Date: **09/24/15 02:25** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4090	5.0	316.4	2925		75	125	4981	20	20	A
Barium	207	1.0	63.29	54.7	241	75	125	129.9	46	20	SR
Beryllium	32.6	1.0	31.64	0.1436	103	75	125	31.71	2.9	20	
Copper	176	1.4	63.29	47.98	202	75	125	134.9	26	20	SR
Iron	7220	5.0	316.4	5646		75	125	7141	1.2	20	A
Manganese	2650	1.0	316.4	217.7	770	75	125	628.1	120	20	SR
Nickel	67.2	1.0	63.29	3.316	101	75	125	69.29	3.1	20	
Vanadium	81.1	1.0	63.29	11.64	110	75	125	75.27	7.4	20	
Zinc	189	1.0	63.29	106.7	131	75	125	225.5	17	20	S

Associated samples: **H15090206-051A, H15090206-054A, H15090206-057A, H15090206-060A, H15090206-063A, H15090206-066A**

- S= Spike recovery outside of QC advisory limits. The recovery in he Laboratory Control Sample was within QC advisory limits. This suggests that the Matrix Spike recover is due to matrix interference.

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30594

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 80** SampType: **Method Blank** Lab ID: **MB-30594** Method: **SW6020**

Analysis Date: **09/25/15 14:28** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.1	0.05									
Boron	ND	2									
Cadmium	ND	0.2									
Chromium	0.2	0.04									
Cobalt	0.05	0.04									
Lead	0.1	0.10									
Molybdenum	ND	0.09									
Selenium	ND	0.2									
Silver	0.3	0.05									
Uranium	ND	0.06									

Associated samples: **H15090206-051A, H15090206-054A, H15090206-057A, H15090206-060A, H15090206-063A, H15090206-066A**

Run ID :Run Order: **ICPMS204-B_150925B: 81** SampType: **Laboratory Control Sample** Lab ID: **LCS-30594** Method: **SW6020**

Analysis Date: **09/25/15 14:30** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	58.5	1.0	240	0	**24**	0	92.9				
Arsenic	160	1.0	196	0.14	**82**	71.4	105.1				
Boron	107	2.2	129	0	**83**	59.5	106.2				
Cadmium	88.8	1.0	99	0	**90**	73.9	106.1				
Chromium	107	1.0	117	0.1777	**91**	73.5	108.5				
Cobalt	104	1.0	108	0.04782	**96**	74.2	105.6				
Lead	99.8	1.0	105	0.1467	**95**	74.4	108.6				
Molybdenum	109	1.0	127	0	**86**	66.5	103.1				
Selenium	186	1.0	205	0	**91**	71.2	110.2				
Silver	38.8	1.0	42.1	0.3224	**91**	70.8	111.9				
Uranium	91.9	1.0	99.9	0	**92**	80.1	120.1				

Associated samples: **H15090206-051A, H15090206-054A, H15090206-057A, H15090206-060A, H15090206-063A, H15090206-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30594

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 82** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-30594** Method: **SW6020**

Analysis Date: **09/25/15 14:33** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	48.7	1.0	49.45	0	98	80	120				
Arsenic	47.2	1.0	49.45	0.14	95	80	120				
Boron	51.2	2.1	49.45	0	104	80	120				
Cadmium	23.7	1.0	24.73	0	96	80	120				
Chromium	47.2	1.0	49.45	0.1777	95	80	120				
Cobalt	47.4	1.0	49.45	0.04782	96	80	120				
Lead	47.4	1.0	49.45	0.1467	96	80	120				
Molybdenum	47.8	1.0	49.45	0	97	80	120				
Selenium	46.9	1.0	49.45	0	95	80	120				
Silver	23.6	1.0	24.73	0.3224	94	80	120				
Uranium	48.7	1.0	49.45	0	98	80	120				

Associated samples: **H15090206-051A, H15090206-054A, H15090206-057A, H15090206-060A, H15090206-063A, H15090206-066A**

Run ID :Run Order: **ICPMS204-B_150925B: 91** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15090206-066APDS** Method: **SW6020**

Analysis Date: **09/25/15 14:57** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	601	1.0	635.4	0.1187	95	75	125				
Arsenic	576	1.0	635.4	8.133	89	75	125				
Boron	585	2.7	635.4	0	92	75	125				
Cadmium	282	1.0	317.7	0.2269	89	75	125				
Chromium	595	1.0	635.4	6.194	93	75	125				
Cobalt	582	1.0	635.4	1.94	91	75	125				
Lead	605	1.0	635.4	15.53	93	75	125				
Molybdenum	601	1.0	635.4	0.3377	94	75	125				
Selenium	549	1.0	635.4	0.2047	86	75	125				
Silver	166	1.0	317.7	0.1302	52	75	125				S
Uranium	586	1.0	635.4	0.7427	92	75	125				

Associated samples: **H15090206-051A, H15090206-054A, H15090206-057A, H15090206-060A, H15090206-063A, H15090206-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30594

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 92** SampType: **Sample Matrix Spike** Lab ID: **H15090206-066AMS** Method: **SW6020**

Analysis Date: **09/25/15 14:59** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	52.2	1.0	63.05	0.1187	83	75	125				
Arsenic	86.5	1.0	63.05	8.133	124	75	125				
Boron	68.5	2.7	63.05	0	109	75	125				
Cadmium	30.8	1.0	31.52	0.2269	97	75	125				
Chromium	66.5	1.0	63.05	6.194	96	75	125				
Cobalt	64.4	1.0	63.05	1.94	99	75	125				
Lead	75.0	1.0	63.05	15.53	94	75	125				
Molybdenum	62.7	1.0	63.05	0.3377	99	75	125				
Selenium	61.6	1.0	63.05	0.2047	97	75	125				
Silver	31.6	1.0	31.52	0.1302	100	75	125				
Uranium	63.3	1.0	63.05	0.7427	99	75	125				

Associated samples: **H15090206-051A, H15090206-054A, H15090206-057A, H15090206-060A, H15090206-063A, H15090206-066A**

Run ID :Run Order: **ICPMS204-B_150925B: 93** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-066AMSD** Method: **SW6020**

Analysis Date: **09/25/15 15:02** Units: **mg/kg-dry** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	58.6	1.0	63.29	0.1187	92	75	125	52.19	11	20	
Arsenic	82.6	1.0	63.29	8.133	118	75	125	86.5	4.6	20	
Boron	65.8	2.7	63.29	0	104	75	125	68.47	4.0	20	
Cadmium	31.5	1.0	31.64	0.2269	99	75	125	30.77	2.3	20	
Chromium	68.6	1.0	63.29	6.194	99	75	125	66.52	3.1	20	
Cobalt	64.7	1.0	63.29	1.94	99	75	125	64.44	0.4	20	
Lead	76.6	1.0	63.29	15.53	96	75	125	75.03	2.0	20	
Molybdenum	62.9	1.0	63.29	0.3377	99	75	125	62.67	0.3	20	
Selenium	61.4	1.0	63.29	0.2047	97	75	125	61.57	0.4	20	
Silver	32.3	1.0	31.64	0.1302	102	75	125	31.55	2.2	20	
Uranium	64.2	1.0	63.29	0.7427	100	75	125	63.3	1.4	20	

Associated samples: **H15090206-051A, H15090206-054A, H15090206-057A, H15090206-060A, H15090206-063A, H15090206-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30594

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150928A: 32** SampType: **Method Blank** Lab ID: **MB-30594** Method: **SW6020**

Analysis Date: **09/29/15 02:08** Units: **mg/kg** **Prep Info:** Prep Date: **9/22/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.2	0.05									
Boron	ND	2									
Cadmium	ND	0.2									
Chromium	0.2	0.04									
Cobalt	ND	0.04									
Lead	ND	0.10									
Molybdenum	ND	0.09									
Selenium	ND	0.2									
Silver	ND	0.05									
Uranium	ND	0.06									

Associated samples: **H15090206-051A, H15090206-054A, H15090206-057A, H15090206-060A, H15090206-063A, H15090206-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30654

Date: *23-Oct-15*

Run ID :Run Order: **HGCV202-H_150928A: 58** SampType: **Method Blank** Lab ID: **MB-30654** Method: **E245.1**
Analysis Date: **09/28/15 16:51** Units: **mg/L** **Prep Info:** Prep Date: **9/27/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2E-06	1E-06									

Associated samples: **H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **HGCV202-H_150928A: 59** SampType: **Laboratory Control Sample** Lab ID: **LCS-30654** Method: **E245.1**
Analysis Date: **09/28/15 16:55** Units: **mg/L** **Prep Info:** Prep Date: **9/27/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000141	0.00010	0.00015	0.0000022	93	90	110				

Associated samples: **H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **HGCV202-H_150928A: 61** SampType: **Sample Matrix Spike** Lab ID: **H15090206-014CMS** Method: **E245.1**
Analysis Date: **09/28/15 17:02** Units: **mg/L** **Prep Info:** Prep Date: **9/27/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00015	0.00010	0.00015	0.00000609	99	70	130				

Associated samples: **H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **HGCV202-H_150928A: 62** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-014CMSD** Method: **E245.1**
Analysis Date: **09/28/15 17:06** Units: **mg/L** **Prep Info:** Prep Date: **9/27/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00016	0.00010	0.00015	0.00000609	99	70	130	0.000154	0.7	20	

Associated samples: **H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **HGCV202-H_150928A: 75** SampType: **Sample Matrix Spike** Lab ID: **H15090250-003CMS** Method: **E245.1**
Analysis Date: **09/28/15 17:54** Units: **mg/L** **Prep Info:** Prep Date: **9/27/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00020	0.00010	0.00015	0.00004009	107	70	130				

Associated samples: **H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30654

Date: *23-Oct-15*

Run ID :Run Order: **HGCV202-H_150928A: 76** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090250-003CMSD** Method: **E245.1**

Analysis Date: **09/28/15 17:58** Units: **mg/L** **Prep Info:** Prep Date: **9/27/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00023	0.00010	0.00015	0.00004009	**127**	70	130	0.0002003	**14**	20	

Associated samples: **H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **HGCV202-H_150929A: 11** SampType: **Method Blank** Lab ID: **MB-30654** Method: **E245.1**

Analysis Date: **09/29/15 11:17** Units: **mg/L** **Prep Info:** Prep Date: **9/27/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1E-06	1E-06									

Associated samples: **H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30688

Date: *23-Oct-15*

Run ID :Run Order: **HGCV202-H_151001A: 26** SampType: **Method Blank** Lab ID: **MB-30688** Method: **E245.1**
Analysis Date: **10/01/15 15:37** Units: **mg/L** **Prep Info:** Prep Date: **9/29/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	1E-06									

Associated samples: **H15090206-001C, H15090206-003C**

Run ID :Run Order: **HGCV202-H_151001A: 29** SampType: **Laboratory Control Sample** Lab ID: **LCS-30688** Method: **E245.1**
Analysis Date: **10/01/15 15:54** Units: **mg/L** **Prep Info:** Prep Date: **9/29/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00016	0.00010	0.00015	0	**109**	90	110				

Associated samples: **H15090206-001C, H15090206-003C**

Run ID :Run Order: **HGCV202-H_151001A: 31** SampType: **Sample Matrix Spike** Lab ID: **H15090206-001CMS** Method: **E245.1**
Analysis Date: **10/01/15 16:07** Units: **mg/L** **Prep Info:** Prep Date: **9/30/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00015	0.00010	0.00015	0.00000254	**97**	70	130				

Associated samples: **H15090206-001C, H15090206-003C**

Run ID :Run Order: **HGCV202-H_151001A: 32** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-001CMSD** Method: **E245.1**
Analysis Date: **10/01/15 16:11** Units: **mg/L** **Prep Info:** Prep Date: **9/30/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00015	0.00010	0.00015	0.00000254	**95**	70	130	0.0001478	**1.6**	20	

Associated samples: **H15090206-001C, H15090206-003C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30692

Date: *23-Oct-15*

Run ID :Run Order: **HGCV202-H_150929A: 42** SampType: **Method Blank** Lab ID: **MB-30692** Method: **E245.1**

Analysis Date: **09/29/15 15:34** Units: **mg/L** **Prep Info:** Prep Date: **9/29/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4E-06	1E-06									

Associated samples: **H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B**

Run ID :Run Order: **HGCV202-H_150929A: 43** SampType: **Laboratory Control Sample** Lab ID: **LCS-30692** Method: **E245.1**

Analysis Date: **09/29/15 15:38** Units: **mg/L** **Prep Info:** Prep Date: **9/29/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00014	0.00010	0.00015	0.00000402	94	90	110				

Associated samples: **H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B**

Run ID :Run Order: **HGCV202-H_150929A: 45** SampType: **Sample Matrix Spike** Lab ID: **H15090206-004CMS** Method: **E245.1**

Analysis Date: **09/29/15 15:45** Units: **mg/L** **Prep Info:** Prep Date: **9/29/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00015	0.00010	0.00015	0.00000704	94	70	130				

Associated samples: **H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B**

Run ID :Run Order: **HGCV202-H_150929A: 46** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-004CMSD** Method: **E245.1**

Analysis Date: **09/29/15 15:49** Units: **mg/L** **Prep Info:** Prep Date: **9/29/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00014	0.00010	0.00015	0.00000704	90	70	130	0.0001474	3.9	20	

Associated samples: **H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 30692

Date: *23-Oct-15*

Run ID :Run Order: **HGCV202-H_150929A: 60** SampType: **Sample Matrix Spike** Lab ID: **H15090206-010BMS** Method: **E245.1**

Analysis Date: **09/29/15 16:41** Units: **mg/L** **Prep Info:** Prep Date: **9/29/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000145	0.00010	0.00015	0.00000531	**93**	70	130				

Associated samples: **H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B**

Run ID :Run Order: **HGCV202-H_150929A: 61** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-010BMSD** Method: **E245.1**

Analysis Date: **09/29/15 16:45** Units: **mg/L** **Prep Info:** Prep Date: **9/29/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000145	0.00010	0.00015	0.00000531	**93**	70	130	0.0001453	**0.2**	20	

Associated samples: **H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B**

Run ID :Run Order: **HGCV202-H_150930A: 13** SampType: **Method Blank** Lab ID: **MB-30692** Method: **E245.1**

Analysis Date: **09/30/15 12:33** Units: **mg/L** **Prep Info:** Prep Date: **9/29/2015** Prep Method: **E245.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4E-06	1E-06									

Associated samples: **H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_R204267

Date: *23-Oct-15*

Run ID :Run Order: **SUB-C204267: 8** SampType: **Method Blank** Lab ID: **MBLK** Method: **A5310 C**

Analysis Date: **09/18/15 03:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	0.1	0.04									

Associated samples: **H15090206-001E, H15090206-002E, H15090206-003E, H15090206-004E, H15090206-005E, H15090206-006E, H15090206-007E, H15090206-008E, H15090206-009E, H15090206-010E, H15090206-011E, H15090206-012E, H15090206-013E, H15090206-014E, H15090206-015E, H15090206-016E, H15090206-017E, H15090206-018E**

Run ID :Run Order: **SUB-C204267: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV-8116** Method: **A5310 C**

Analysis Date: **09/18/15 03:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.2	0.50	10	0	102	90	110	0			

Associated samples: **H15090206-001E, H15090206-002E, H15090206-003E, H15090206-004E, H15090206-005E, H15090206-006E, H15090206-007E, H15090206-008E, H15090206-009E, H15090206-010E, H15090206-011E, H15090206-012E, H15090206-013E, H15090206-014E, H15090206-015E, H15090206-016E, H15090206-017E, H15090206-018E**

Run ID :Run Order: **SUB-C204267: 10** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-7923** Method: **A5310 C**

Analysis Date: **09/18/15 04:01** Units: **mg/L** **Prep Info:** Prep Date: **5/10/2005** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.2	0.50	10	0	102	90	110	0			

Associated samples: **H15090206-001E, H15090206-002E, H15090206-003E, H15090206-004E, H15090206-005E, H15090206-006E, H15090206-007E, H15090206-008E, H15090206-009E, H15090206-010E, H15090206-011E, H15090206-012E, H15090206-013E, H15090206-014E, H15090206-015E, H15090206-016E, H15090206-017E, H15090206-018E**

Run ID :Run Order: **SUB-C204267: 12** SampType: **Sample Matrix Spike** Lab ID: **H15090206-001E** Method: **A5310 C**

Analysis Date: **09/18/15 04:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	15.7	0.50	10	5.201	105	85	115	0			

Associated samples: **H15090206-001E, H15090206-002E, H15090206-003E, H15090206-004E, H15090206-005E, H15090206-006E, H15090206-007E, H15090206-008E, H15090206-009E, H15090206-010E, H15090206-011E, H15090206-012E, H15090206-013E, H15090206-014E, H15090206-015E, H15090206-016E, H15090206-017E, H15090206-018E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_R204267

Date: *23-Oct-15*

Run ID :Run Order: **SUB-C204267: 13** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-001E** Method: **A5310 C**
Analysis Date: **09/18/15 04:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	15.5	0.50	10	5.201	103	85	115	15.68	1.3	10	

Associated samples: **H15090206-001E, H15090206-002E, H15090206-003E, H15090206-004E, H15090206-005E, H15090206-006E, H15090206-007E, H15090206-008E, H15090206-009E, H15090206-010E, H15090206-011E, H15090206-012E, H15090206-013E, H15090206-014E, H15090206-015E, H15090206-016E, H15090206-017E, H15090206-018E**

Run ID :Run Order: **SUB-C204267: 23** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-7923** Method: **A5310 C**
Analysis Date: **09/18/15 07:45** Units: **mg/L** **Prep Info:** Prep Date: **5/10/2005** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.2	0.50	10	0	102	90	110	0			

Associated samples: **H15090206-001E, H15090206-002E, H15090206-003E, H15090206-004E, H15090206-005E, H15090206-006E, H15090206-007E, H15090206-008E, H15090206-009E, H15090206-010E, H15090206-011E, H15090206-012E, H15090206-013E, H15090206-014E, H15090206-015E, H15090206-016E, H15090206-017E, H15090206-018E**

Run ID :Run Order: **SUB-C204267: 25** SampType: **Sample Matrix Spike** Lab ID: **H15090206-011E** Method: **A5310 C**
Analysis Date: **09/18/15 08:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	24.4	0.50	20	4.074	102	85	115	0			

Associated samples: **H15090206-001E, H15090206-002E, H15090206-003E, H15090206-004E, H15090206-005E, H15090206-006E, H15090206-007E, H15090206-008E, H15090206-009E, H15090206-010E, H15090206-011E, H15090206-012E, H15090206-013E, H15090206-014E, H15090206-015E, H15090206-016E, H15090206-017E, H15090206-018E**

Run ID :Run Order: **SUB-C204267: 26** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-011E** Method: **A5310 C**
Analysis Date: **09/18/15 08:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	24.6	0.50	20	4.074	102	85	115	24.42	0.6	10	

Associated samples: **H15090206-001E, H15090206-002E, H15090206-003E, H15090206-004E, H15090206-005E, H15090206-006E, H15090206-007E, H15090206-008E, H15090206-009E, H15090206-010E, H15090206-011E, H15090206-012E, H15090206-013E, H15090206-014E, H15090206-015E, H15090206-016E, H15090206-017E, H15090206-018E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_R204267

Date: *23-Oct-15*

Run ID :Run Order: **SUB-C204267: 34** SampType: **Laboratory Control Sample** Lab ID: **LCS-8116** Method: **A5310 C**

Analysis Date: **09/18/15 10:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.3	0.50	10	0.1248	**102**	90	110	0			

Associated samples: **H15090206-001E, H15090206-002E, H15090206-003E, H15090206-004E, H15090206-005E, H15090206-006E, H15090206-007E, H15090206-008E, H15090206-009E, H15090206-010E, H15090206-011E, H15090206-012E, H15090206-013E, H15090206-014E, H15090206-015E, H15090206-016E, H15090206-017E, H15090206-018E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109270

Date: *23-Oct-15*

Run ID :Run Order: **PHSC_101-H_150911A: 6** SampType: **Method Blank** Lab ID: **MB** Method: **A2320 B**

Analysis Date: **09/11/15 09:59** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	2	0.7									

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **PHSC_101-H_150911A: 8** SampType: **Laboratory Control Sample** Lab ID: **LCS** Method: **A2320 B**

Analysis Date: **09/11/15 10:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	600	4.0	600	1.64	100	90	110				

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **PHSC_101-H_150911A: 11** SampType: **Sample Duplicate** Lab ID: **H15090206-001ADUP** Method: **A2320 B**

Analysis Date: **09/11/15 10:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	130	4.0		0				123.1	2.4	10	
Bicarbonate as HCO3	150	4.0		0				149.6	2.4	10	

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **PHSC_101-H_150911A: 47** SampType: **Sample Duplicate** Lab ID: **H15090206-018ADUP** Method: **A2320 B**

Analysis Date: **09/11/15 12:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	110	4.0		0				109.8	1.9	10	
Bicarbonate as HCO3	140	4.0		0				133.4	1.9	10	

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **09/11/15 13:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.301	0.10	0.3	0	100	90	110				
Antimony	0.0589	0.050	0.06	0	98	90	110				
Arsenic	0.0609	0.0050	0.06	0	102	90	110				
Barium	0.0585	0.10	0.06	0	97	90	110				
Boron	0.0581	0.10	0.06	0	97	90	110				
Cadmium	0.0310	0.0010	0.03	0	103	90	110				
Calcium	3.08	0.50	3	0	103	90	110				
Chromium	0.0599	0.010	0.06	0	100	90	110				
Cobalt	0.0602	0.010	0.06	0	100	90	110				
Copper	0.0614	0.010	0.06	0	102	90	110				
Iron	0.309	0.020	0.3	0	103	90	110				
Lead	0.0579	0.010	0.06	0	97	90	110				
Magnesium	3.03	0.50	3	0	101	90	110				
Manganese	0.298	0.010	0.3	0	99	90	110				
Molybdenum	0.0583	0.0050	0.06	0	97	90	110				
Nickel	0.0610	0.010	0.06	0	102	90	110				
Potassium	2.94	0.50	3	0	98	90	110				
Selenium	0.0602	0.0050	0.06	0	100	90	110				
Silver	0.0306	0.0050	0.03	0	102	90	110				
Sodium	3.11	0.50	3	0	104	90	110				
Uranium	0.0573	0.0010	0.06	0	95	90	110				
Vanadium	0.0587	0.10	0.06	0	98	90	110				

Associated samples: **H15090206-001B, H15090206-001C, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-003C, H15090206-004B, H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B, H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150911A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/11/15 13:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.5	0.10	40	0	96	70	130				
Antimony	0.000386	0.050		0							
Arsenic	5.60E-05	0.0050		0							

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/11/15 13:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	0.000111	0.10		0							
Boron	0.00299	0.10		0							
Cadmium	0.000453	0.0010		0							
Calcium	122	0.50	120	0	**101**	70	130				
Chromium	0.00108	0.010		0							
Cobalt	2.90E-05	0.010		0							
Copper	0.000178	0.010		0							
Iron	99.1	0.020	100	0	**99**	70	130				
Lead	0.000248	0.010		0							
Magnesium	40.7	0.50	40	0	**102**	70	130				
Manganese	0.000302	0.010		0							
Molybdenum	0.838	0.0050	0.8	0	**105**	70	130				
Nickel	0.000615	0.010		0							
Potassium	40.4	0.50	40	0	**101**	70	130				
Selenium	0.000381	0.0050		0							
Silver	0.000171	0.0050		0							
Sodium	100	0.50	100	0	**100**	70	130				
Uranium	0.000267	0.0010		0							
Vanadium	0.000135	0.10		0							

Associated samples: **H15090206-001B, H15090206-001C, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-003C, H15090206-004B, H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B, H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150911A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/11/15 13:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	39.1	0.10	40	0	**98**	70	130				
Antimony	0.000170	0.050		0		0	0				
Arsenic	0.0111	0.0050	0.01	0	**111**	70	130				
Barium	0.000180	0.10		0		0	0				
Boron	0.00340	0.10		0		0	0				
Cadmium	0.0109	0.0010	0.01	0	**109**	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/11/15 13:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	121	0.50	120	0	101	70	130				
Chromium	0.0239	0.010	0.02	0	119	70	130				
Cobalt	0.0227	0.010	0.02	0	114	70	130				
Copper	0.0221	0.010	0.02	0	111	70	130				
Iron	99.3	0.020	100	0	99	70	130				
Lead	0.000219	0.010		0		0	0				
Magnesium	41.6	0.50	40	0	104	70	130				
Manganese	0.0229	0.010	0.02	0	114	70	130				
Molybdenum	0.837	0.0050	0.8	0	105	70	130				
Nickel	0.0227	0.010	0.02	0	113	70	130				
Potassium	40.4	0.50	40	0	101	70	130				
Selenium	0.0110	0.0050	0.01	0	110	70	130				
Silver	0.0194	0.0050	0.02	0	97	70	130				
Sodium	104	0.50	100	0	104	70	130				
Uranium	4.00E-05	0.0010		0		0	0				
Vanadium	0.0231	0.10	0.02	0	116	70	130				

Associated samples: **H15090206-001B, H15090206-001C, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-003C, H15090206-004B, H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B, H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150911A: 31** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **09/11/15 21:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.276	0.10	0.3	0	92	90	110				
Antimony	0.0600	0.050	0.06	0	100	90	110				
Arsenic	0.0630	0.0050	0.06	0	105	90	110				
Barium	0.0590	0.10	0.06	0	98	90	110				
Boron	0.0618	0.10	0.06	0	103	90	110				
Cadmium	0.0318	0.0010	0.03	0	106	90	110				
Calcium	3.04	0.50	3	0	101	90	110				
Chromium	0.0595	0.010	0.06	0	99	90	110				
Cobalt	0.0601	0.010	0.06	0	100	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 31** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **09/11/15 21:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	0.0615	0.010	0.06	0	103	90	110				
Iron	0.309	0.020	0.3	0	103	90	110				
Lead	0.0583	0.010	0.06	0	97	90	110				
Magnesium	3.07	0.50	3	0	102	90	110				
Manganese	0.302	0.010	0.3	0	101	90	110				
Molybdenum	0.0584	0.0050	0.06	0	97	90	110				
Nickel	0.0612	0.010	0.06	0	102	90	110				
Potassium	2.94	0.50	3	0	98	90	110				
Selenium	0.0628	0.0050	0.06	0	105	90	110				
Silver	0.0305	0.0050	0.03	0	102	90	110				
Sodium	3.15	0.50	3	0	105	90	110				
Uranium	0.0571	0.0010	0.06	0	95	90	110				
Vanadium	0.0583	0.10	0.06	0	97	90	110				

Associated samples: **H15090206-001B, H15090206-001C, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-003C, H15090206-004B, H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B, H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150911A: 32** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/11/15 21:13** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	35.4	0.10	40	0	89	70	130				
Antimony	0.000362	0.050		0							
Arsenic	0.000125	0.0050		0							
Barium	3.80E-05	0.10		0							
Boron	0.00364	0.10		0							
Cadmium	0.000339	0.0010		0							
Calcium	120	0.50	120	0	100	70	130				
Chromium	0.00101	0.010		0							
Cobalt	2.40E-05	0.010		0							
Copper	0.000185	0.010		0							
Iron	97.8	0.020	100	0	98	70	130				
Lead	0.000222	0.010		0							

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 32** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/11/15 21:13** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Magnesium	40.6	0.50	40	0	**101**	70	130				
Manganese	0.000325	0.010		0							
Molybdenum	0.827	0.0050	0.8	0	**103**	70	130				
Nickel	0.000570	0.010		0							
Potassium	40.0	0.50	40	0	**100**	70	130				
Selenium	2.90E-05	0.0050		0							
Silver	0.000117	0.0050		0							
Sodium	101	0.50	100	0	**101**	70	130				
Uranium	0.000170	0.0010		0							
Vanadium	7.30E-05	0.10		0							

Associated samples: **H15090206-001B, H15090206-001C, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-003C, H15090206-004B, H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B, H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150911A: 33** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/11/15 21:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	35.8	0.10	40	0	**90**	70	130				
Antimony	0.000167	0.050		0		0	0				
Arsenic	0.0112	0.0050	0.01	0	**112**	70	130				
Barium	0.000157	0.10		0		0	0				
Boron	0.00353	0.10		0		0	0				
Cadmium	0.0110	0.0010	0.01	0	**110**	70	130				
Calcium	121	0.50	120	0	**101**	70	130				
Chromium	0.0235	0.010	0.02	0	**117**	70	130				
Cobalt	0.0225	0.010	0.02	0	**112**	70	130				
Copper	0.0222	0.010	0.02	0	**111**	70	130				
Iron	98.1	0.020	100	0	**98**	70	130				
Lead	0.000220	0.010		0		0	0				
Magnesium	41.7	0.50	40	0	**104**	70	130				
Manganese	0.0225	0.010	0.02	0	**113**	70	130				
Molybdenum	0.834	0.0050	0.8	0	**104**	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 33** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/11/15 21:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	0.0223	0.010	0.02	0	111	70	130				
Potassium	40.5	0.50	40	0	101	70	130				
Selenium	0.0111	0.0050	0.01	0	111	70	130				
Silver	0.0198	0.0050	0.02	0	99	70	130				
Sodium	103	0.50	100	0	103	70	130				
Uranium	3.50E-05	0.0010		0		0	0				
Vanadium	0.0226	0.10	0.02	0	113	70	130				

Associated samples: **H15090206-001B, H15090206-001C, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-003C, H15090206-004B, H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B, H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150911A: 54** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **09/12/15 00:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0008									
Antimony	5E-05	4E-05									
Arsenic	ND	6E-05									
Barium	ND	8E-05									
Cadmium	ND	2E-05									
Chromium	ND	3E-05									
Cobalt	ND	3E-05									
Copper	ND	6E-05									
Iron	ND	0.0006									
Lead	ND	3E-05									
Manganese	ND	4E-05									
Molybdenum	ND	3E-05									
Nickel	ND	3E-05									
Selenium	ND	0.0002									
Silver	ND	3E-05									
Uranium	ND	1.0E-05									
Vanadium	ND	3E-05									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 54** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **09/12/15 00:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICPMS204-B_150911A: 55** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**

Analysis Date: **09/12/15 00:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0482	0.10	0.05	0	96	85	115				
Antimony	0.0491	0.050	0.05	0.0000496	98	85	115				
Arsenic	0.0511	0.0050	0.05	0	102	85	115				
Barium	0.0501	0.10	0.05	0	100	85	115				
Cadmium	0.0520	0.0010	0.05	0	104	85	115				
Chromium	0.0506	0.010	0.05	0	101	85	115				
Cobalt	0.0512	0.010	0.05	0	102	85	115				
Copper	0.0521	0.010	0.05	0	104	85	115				
Iron	0.154	0.020	0.15	0	102	85	115				
Lead	0.0489	0.010	0.05	0	98	85	115				
Manganese	0.0517	0.010	0.05	0	103	85	115				
Molybdenum	0.0507	0.0050	0.05	0	101	85	115				
Nickel	0.0519	0.010	0.05	0	104	85	115				
Selenium	0.0539	0.0050	0.05	0	108	85	115				
Silver	0.0199	0.0050	0.02	0	100	85	115				
Uranium	0.0460	0.0010	0.05	0	92	85	115				
Vanadium	0.0495	0.10	0.05	0	99	85	115				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICPMS204-B_150911A: 214** SampType: **Sample Matrix Spike** Lab ID: **H15090206-004BMS** Method: **E200.8**

Analysis Date: **09/12/15 09:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0460	0.030	0.05	0.001003	90	70	130				
Antimony	0.0483	0.0010	0.05	0.0002972	96	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 214** SampType: **Sample Matrix Spike** Lab ID: **H15090206-004BMS** Method: **E200.8**

Analysis Date: **09/12/15 09:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Arsenic	0.0599	0.0010	0.05	0.006367	107	70	130				
Barium	0.0894	0.050	0.05	0.04085	97	70	130				
Cadmium	0.0489	0.0010	0.05	0.0000904	98	70	130				
Chromium	0.0475	0.0050	0.05	0	95	70	130				
Cobalt	0.0486	0.0050	0.05	0.0001066	97	70	130				
Copper	0.0574	0.0050	0.05	0.008769	97	70	130				
Iron	0.175	0.020	0.15	0.03454	93	70	130				
Lead	0.0475	0.0010	0.05	0.0001944	95	70	130				
Manganese	0.154	0.0010	0.05	0.107	93	70	130				
Molybdenum	0.0548	0.0010	0.05	0.005834	98	70	130				
Nickel	0.0489	0.0050	0.05	0.0006189	97	70	130				
Selenium	0.0566	0.0010	0.05	0.0003576	113	70	130				
Uranium	0.0499	0.00030	0.05	0.004765	90	70	130				
Vanadium	0.0501	0.010	0.05	0.002035	96	70	130				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICPMS204-B_150911A: 215** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-004BMSD** Method: **E200.8**

Analysis Date: **09/12/15 09:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0468	0.030	0.05	0.001003	92	70	130	0.04599	1.8	20	
Antimony	0.0494	0.0010	0.05	0.0002972	98	70	130	0.04834	2.2	20	
Arsenic	0.0610	0.0010	0.05	0.006367	109	70	130	0.05988	1.9	20	
Barium	0.0886	0.050	0.05	0.04085	96	70	130	0.08939	0.9	20	
Cadmium	0.0488	0.0010	0.05	0.0000904	97	70	130	0.04888	0.1	20	
Chromium	0.0472	0.0050	0.05	0	94	70	130	0.0475	0.7	20	
Cobalt	0.0481	0.0050	0.05	0.0001066	96	70	130	0.04859	1.0	20	
Copper	0.0571	0.0050	0.05	0.008769	97	70	130	0.05739	0.5	20	
Iron	0.176	0.020	0.15	0.03454	94	70	130	0.1747	0.6	20	
Lead	0.0472	0.0010	0.05	0.0001944	94	70	130	0.04754	0.8	20	
Manganese	0.152	0.0010	0.05	0.107	90	70	130	0.1535	1.0	20	
Molybdenum	0.0553	0.0010	0.05	0.005834	99	70	130	0.05484	0.9	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 215** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-004BMSD** Method: **E200.8**

Analysis Date: **09/12/15 09:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 16	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	0.0489	0.0050	0.05	0.0006189	97	70	130	0.04893	0.0	20	
Selenium	0.0571	0.0010	0.05	0.0003576	114	70	130	0.05664	0.9	20	
Uranium	0.0502	0.00030	0.05	0.004765	91	70	130	0.04992	0.7	20	
Vanadium	0.0498	0.010	0.05	0.002035	96	70	130	0.05007	0.4	20	

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICPMS204-B_150911A: 222** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/12/15 09:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	35.8	0.10	40	0	90	70	130				
Antimony	0.000169	0.050		0							
Arsenic	0.000288	0.0050		0							
Barium	8.90E-05	0.10		0							
Boron	0.00902	0.10		0							
Cadmium	0.000448	0.0010		0							
Calcium	121	0.50	120	0	101	70	130				
Chromium	0.00108	0.010		0							
Cobalt	6.70E-05	0.010		0							
Copper	0.000212	0.010		0							
Iron	97.1	0.020	100	0	97	70	130				
Lead	0.000277	0.010		0							
Magnesium	39.0	0.50	40	0	98	70	130				
Manganese	0.000489	0.010		0							
Molybdenum	0.851	0.0050	0.8	0	106	70	130				
Nickel	0.000659	0.010		0							
Potassium	41.4	0.50	40	0	104	70	130				
Selenium	0.000628	0.0050		0							
Silver	0.000185	0.0050		0							
Sodium	96.2	0.50	100	0	96	70	130				
Uranium	0.000834	0.0010		0							
Vanadium	0.000200	0.10		0							

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 222** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/12/15 09:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Associated samples: **H15090206-001B, H15090206-001C, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-003C, H15090206-004B, H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B, H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150911A: 223** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/12/15 09:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	35.7	0.10	40	0	**89**	70	130				
Antimony	0.000132	0.050		0		0	0				
Arsenic	0.0118	0.0050	0.01	0	**118**	70	130				
Barium	0.000118	0.10		0		0	0				
Boron	0.00716	0.10		0		0	0				
Cadmium	0.0110	0.0010	0.01	0	**110**	70	130				
Calcium	122	0.50	120	0	**102**	70	130				
Chromium	0.0233	0.010	0.02	0	**116**	70	130				
Cobalt	0.0229	0.010	0.02	0	**115**	70	130				
Copper	0.0220	0.010	0.02	0	**110**	70	130				
Iron	98.2	0.020	100	0	**98**	70	130				
Lead	0.000226	0.010		0		0	0				
Magnesium	39.5	0.50	40	0	**99**	70	130				
Manganese	0.0229	0.010	0.02	0	**115**	70	130				
Molybdenum	0.855	0.0050	0.8	0	**107**	70	130				
Nickel	0.0224	0.010	0.02	0	**112**	70	130				
Potassium	41.4	0.50	40	0	**104**	70	130				
Selenium	0.0112	0.0050	0.01	0	**112**	70	130				
Silver	0.0202	0.0050	0.02	0	**101**	70	130				
Sodium	97.5	0.50	100	0	**98**	70	130				
Uranium	0.000170	0.0010		0		0	0				
Vanadium	0.0230	0.10	0.02	0	**115**	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 223** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/12/15 09:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 22	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15090206-001B, H15090206-001C, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-003C, H15090206-004B, H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B, H15090206-014C, H15090206-015B, H15090206-015C, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150911A: 248** SampType: **Sample Matrix Spike** Lab ID: **H15090206-014BMS** Method: **E200.8**

Analysis Date: **09/12/15 10:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0469	0.030	0.05	0.001531	**91**	70	130				
Antimony	0.0494	0.0010	0.05	0.0002329	**98**	70	130				
Arsenic	0.0603	0.0010	0.05	0.006054	**108**	70	130				
Barium	0.0820	0.050	0.05	0.03269	**99**	70	130				
Cadmium	0.0495	0.0010	0.05	0.0000392	**99**	70	130				
Chromium	0.0477	0.0050	0.05	0	**95**	70	130				
Cobalt	0.0495	0.0050	0.05	0.0004751	**98**	70	130				
Copper	0.0541	0.0050	0.05	0.00499	**98**	70	130				
Iron	0.158	0.020	0.15	0.01798	**94**	70	130				
Lead	0.0477	0.0010	0.05	0.0001607	**95**	70	130				
Manganese	0.101	0.0010	0.05	0.05356	**95**	70	130				
Molybdenum	0.0538	0.0010	0.05	0.003981	**100**	70	130				
Nickel	0.0490	0.0050	0.05	0.0005688	**97**	70	130				
Selenium	0.0577	0.0010	0.05	0.0007653	**114**	70	130				
Silver	0.0164	0.0010	0.02	0	**82**	70	130				
Uranium	0.0482	0.00030	0.05	0.003096	**90**	70	130				
Vanadium	0.0502	0.010	0.05	0.001806	**97**	70	130				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109296

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150911A: 249** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-014BMSD** Method: **E200.8**

Analysis Date: **09/12/15 10:55** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 17	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0457	0.030	0.05	0.001531	**88**	70	130	0.04686	**2.5**	20	
Antimony	0.0500	0.0010	0.05	0.0002329	**99**	70	130	0.0494	**1.1**	20	
Arsenic	0.0605	0.0010	0.05	0.006054	**109**	70	130	0.06026	**0.3**	20	
Barium	0.0811	0.050	0.05	0.03269	**97**	70	130	0.08197	**1.1**	20	
Cadmium	0.0494	0.0010	0.05	0.0000392	**99**	70	130	0.04951	**0.2**	20	
Chromium	0.0472	0.0050	0.05	0	**94**	70	130	0.04769	**1.1**	20	
Cobalt	0.0488	0.0050	0.05	0.0004751	**97**	70	130	0.04948	**1.5**	20	
Copper	0.0533	0.0050	0.05	0.00499	**97**	70	130	0.05413	**1.5**	20	
Iron	0.159	0.020	0.15	0.01798	**94**	70	130	0.1584	**0.6**	20	
Lead	0.0477	0.0010	0.05	0.0001607	**95**	70	130	0.0477	**0.0**	20	
Manganese	0.100	0.0010	0.05	0.05356	**94**	70	130	0.1012	**0.7**	20	
Molybdenum	0.0537	0.0010	0.05	0.003981	**99**	70	130	0.05383	**0.2**	20	
Nickel	0.0488	0.0050	0.05	0.0005688	**96**	70	130	0.04902	**0.5**	20	
Selenium	0.0578	0.0010	0.05	0.0007653	**114**	70	130	0.05766	**0.2**	20	
Silver	0.0144	0.0010	0.02	0	**72**	70	130	0.01644	**14**	20	
Uranium	0.0486	0.00030	0.05	0.003096	**91**	70	130	0.04825	**0.7**	20	
Vanadium	0.0498	0.010	0.05	0.001806	**96**	70	130	0.05018	**0.7**	20	

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109297

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150911A: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **09/11/15 09:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.805	0.10	0.8	0	101	95	105				
Calcium	39.5	1.0	40	0	99	95	105				
Magnesium	39.2	1.0	40	0	98	95	105				
Potassium	40.4	1.0	40	0	101	95	105				
Sodium	40.5	1.0	40	0	101	95	105				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICP2-HE_150911A: 7** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-1** Method: **E200.7**

Analysis Date: **09/11/15 09:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.54	0.10	2.5	0	102	95	105				
Calcium	25.0	1.0	25	0	100	95	105				
Magnesium	24.6	1.0	25	0	98	95	105				
Potassium	24.7	1.0	25	0	99	95	105				
Sodium	24.8	1.0	25	0	99	95	105				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICP2-HE_150911A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **09/11/15 09:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	-0.00243	0.10		0		0	0				
Calcium	475	1.0	500	0	95	80	120				
Magnesium	531	1.0	500	0	106	80	120				
Potassium	-0.0935	1.0		0		0	0				
Sodium	0.00561	1.0		0		0	0				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109297

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150911A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **09/11/15 10:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.990	0.10	1	0	99	80	120				
Calcium	473	1.0	500	0	95	80	120				
Magnesium	527	1.0	500	0	105	80	120				
Potassium	20.6	1.0	20	0	103	80	120				
Sodium	20.7	1.0	20	0	104	80	120				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICP2-HE_150911A: 13** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.7**

Analysis Date: **09/11/15 10:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.003									
Calcium	0.06	0.03									
Magnesium	ND	0.02									
Potassium	ND	0.07									
Sodium	ND	0.02									

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICP2-HE_150911A: 14** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.7**

Analysis Date: **09/11/15 10:12** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.989	0.10	1	0	99	85	115				
Calcium	50.3	1.0	50	0.06062	100	85	115				
Magnesium	50.4	1.0	50	0	101	85	115				
Potassium	50.3	1.0	50	0	101	85	115				
Sodium	50.4	1.0	50	0	101	85	115				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109297

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150911A: 19** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **09/11/15 10:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.49	0.10	2.5	0	100	90	110				
Calcium	24.9	1.0	25	0	99	90	110				
Magnesium	24.4	1.0	25	0	97	90	110				
Potassium	25.0	1.0	25	0	100	90	110				
Sodium	25.1	1.0	25	0	100	90	110				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICP2-HE_150911A: 31** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **09/11/15 11:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.54	0.10	2.5	0	101	90	110				
Calcium	25.2	1.0	25	0	101	90	110				
Magnesium	25.4	1.0	25	0	102	90	110				
Potassium	25.7	1.0	25	0	103	90	110				
Sodium	25.9	1.0	25	0	104	90	110				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICP2-HE_150911A: 34** SampType: **Sample Matrix Spike** Lab ID: **H15090206-004BMS2** Method: **E200.7**

Analysis Date: **09/11/15 11:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.11	0.050	1	0.07272	104	70	130				
Calcium	102	1.0	50	51.35	101	70	130				
Magnesium	64.1	1.0	50	12.62	103	70	130				
Potassium	58.5	1.0	50	6.29	104	70	130				
Sodium	84.2	1.0	50	31.53	105	70	130				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109297

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150911A: 35** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-004BMSD2** Method: **E200.7**

Analysis Date: **09/11/15 11:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.09	0.050	1	0.07272	101	70	130	1.112	2.3	20	
Calcium	102	1.0	50	51.35	101	70	130	101.6	0.4	20	
Magnesium	64.1	1.0	50	12.62	103	70	130	64.11	0.0	20	
Potassium	57.7	1.0	50	6.29	103	70	130	58.53	1.5	20	
Sodium	82.9	1.0	50	31.53	103	70	130	84.19	1.6	20	

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICP2-HE_150911A: 43** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **09/11/15 12:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.54	0.10	2.5	0	102	90	110				
Calcium	25.2	1.0	25	0	101	90	110				
Magnesium	25.6	1.0	25	0	102	90	110				
Potassium	26.9	1.0	25	0	108	90	110				
Sodium	27.2	1.0	25	0	109	90	110				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICP2-HE_150911A: 49** SampType: **Sample Matrix Spike** Lab ID: **H15090206-014BMS2** Method: **E200.7**

Analysis Date: **09/11/15 12:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.08	0.050	1	0.06119	102	70	130				
Calcium	105	1.0	50	54.75	101	70	130				
Magnesium	64.6	1.0	50	12.1	105	70	130				
Potassium	57.9	1.0	50	5.154	106	70	130				
Sodium	79.6	1.0	50	26.76	106	70	130				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109297

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150911A: 50** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-014BMSD2** Method: **E200.7**

Analysis Date: **09/11/15 12:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.08	0.050	1	0.06119	102	70	130	1.078	0.0	20	
Calcium	105	1.0	50	54.75	101	70	130	105.4	0.1	20	
Magnesium	64.5	1.0	50	12.1	105	70	130	64.6	0.2	20	
Potassium	58.1	1.0	50	5.154	106	70	130	57.91	0.3	20	
Sodium	79.7	1.0	50	26.76	106	70	130	79.55	0.2	20	

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICP2-HE_150911A: 58** SampType: **Sample Matrix Spike** Lab ID: **H15090206-018BMS2** Method: **E200.7**

Analysis Date: **09/11/15 12:57** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.05	0.050	1	0.05586	100	70	130				
Calcium	102	1.0	50	54.62	95	70	130				
Magnesium	62.0	1.0	50	12.24	100	70	130				
Potassium	58.6	1.0	50	5.161	107	70	130				
Sodium	83.6	1.0	50	28.82	109	70	130				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICP2-HE_150911A: 59** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-018BMSD2** Method: **E200.7**

Analysis Date: **09/11/15 13:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.10	0.050	1	0.05586	104	70	130	1.054	3.9	20	
Calcium	104	1.0	50	54.62	100	70	130	102.2	2.2	20	
Magnesium	63.7	1.0	50	12.24	103	70	130	62	2.6	20	
Potassium	57.4	1.0	50	5.161	105	70	130	58.62	2.1	20	
Sodium	81.7	1.0	50	28.82	106	70	130	83.56	2.3	20	

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109307

Date: *23-Oct-15*

Run ID :Run Order: **IC102-H_150911A: 12** SampType: **Method Blank** Lab ID: **ICB** Method: **E300.0**
Analysis Date: **09/11/15 10:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	0.009	0.009									
Sulfate	ND	0.02									

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A**

Run ID :Run Order: **IC102-H_150911A: 13** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E300.0**
Analysis Date: **09/11/15 10:57** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	103	1.0	100	0	103	90	110				
Sulfate	407	1.0	400	0	102	90	110				

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A**

Run ID :Run Order: **IC102-H_150911A: 14** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E300.0**
Analysis Date: **09/11/15 11:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	48.1	1.0	50	0.009	96	90	110				
Sulfate	206	1.0	200	0	103	90	110				

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A**

Run ID :Run Order: **IC102-H_150911A: 15** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV091115-1** Method: **E300.0**
Analysis Date: **09/11/15 11:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	102	1.0	100	0	102	90	110				
Sulfate	408	1.0	400	0	102	90	110				

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A**

Run ID :Run Order: **IC102-H_150911A: 20** SampType: **Sample Matrix Spike** Lab ID: **H15090206-001AMS** Method: **E300.0**
Analysis Date: **09/11/15 12:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	84.2	1.0	50	32.1	104	90	110				
Sulfate	297	1.0	200	88.84	104	90	110				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109307

Date: *23-Oct-15*

Run ID :Run Order: **IC102-H_150911A: 20** SampType: **Sample Matrix Spike** Lab ID: **H15090206-001AMS** Method: **E300.0**

Analysis Date: **09/11/15 12:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A**

Run ID :Run Order: **IC102-H_150911A: 21** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-001AMSD** Method: **E300.0**

Analysis Date: **09/11/15 12:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	84.4	1.0	50	32.1	**105**	90	110	84.21	**0.3**	20	
Sulfate	297	1.0	200	88.84	**104**	90	110	297.2	**0.1**	20	

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109332

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150914B: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **09/14/15 11:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0310	0.0010	0.03	0	**103**	90	110				
Iron	0.314	0.020	0.3	0	**105**	90	110				
Silver	0.0302	0.0050	0.03	0	**101**	90	110				
Zinc	0.0636	0.010	0.06	0	**106**	90	110				

Associated samples: **H15090206-001B, H15090206-001C, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-003C, H15090206-004B, H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B, H15090206-014C, H15090206-015B, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150914B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/14/15 11:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	1.00E-06	0.0010		0							
Iron	95.4	0.020	100	0	**95**	70	130				
Silver	0.000162	0.0050		0							
Zinc	0.00100	0.010		0							

Associated samples: **H15090206-001B, H15090206-001C, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-003C, H15090206-004B, H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B, H15090206-014C, H15090206-015B, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150914B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/14/15 11:12** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	-5.00E-06	0.0010		0		0	0				
Iron	95.9	0.020	100	0	**96**	70	130				
Silver	0.0186	0.0050	0.02	0	**93**	70	130				
Zinc	0.0110	0.010	0.01	0	**110**	70	130				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109332

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150914B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/14/15 11:12** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15090206-001B, H15090206-001C, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-003C, H15090206-004B, H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B, H15090206-014C, H15090206-015B, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150914B: 25** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **09/14/15 13:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	ND	0.0002									
Iron	0.0008	0.0006									
Silver	ND	3E-05									
Zinc	0.0007	0.0001									

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICPMS204-B_150914B: 26** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**

Analysis Date: **09/14/15 13:13** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0520	0.0010	0.05	0	**104**	85	115				
Iron	0.153	0.020	0.15	0.0007963	**101**	85	115				
Silver	0.0193	0.0050	0.02	0	**96**	85	115				
Zinc	0.0538	0.010	0.05	0.0006624	**106**	85	115				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICPMS204-B_150914B: 65** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **09/14/15 16:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0298	0.0010	0.03	0	**99**	90	110				
Iron	0.314	0.020	0.3	0	**105**	90	110				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109332

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150914B: 65** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **09/14/15 16:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Silver	0.0304	0.0050	0.03	0	101	90	110				
Zinc	0.0635	0.010	0.06	0	106	90	110				

Associated samples: **H15090206-001B, H15090206-001C, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-003C, H15090206-004B, H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B, H15090206-014C, H15090206-015B, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150914B: 66** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/14/15 16:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	1.70E-05	0.0010		0							
Iron	96.6	0.020	100	0	97	70	130				
Silver	0.000145	0.0050		0							
Zinc	0.000788	0.010		0							

Associated samples: **H15090206-001B, H15090206-001C, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-003C, H15090206-004B, H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B, H15090206-014C, H15090206-015B, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150914B: 67** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/14/15 16:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	1.00E-06	0.0010		0		0	0				
Iron	95.6	0.020	100	0	96	70	130				
Silver	0.0190	0.0050	0.02	0	95	70	130				
Zinc	0.0108	0.010	0.01	0	108	70	130				

Associated samples: **H15090206-001B, H15090206-001C, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-003C, H15090206-004B, H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B, H15090206-014C, H15090206-015B, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109332

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150914B: 93** SampType: **Sample Matrix Spike** Lab ID: **H15090199-001BMS** Method: **E200.8**

Analysis Date: **09/14/15 17:36** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0497	0.0010	0.05	0	99	70	130				
Iron	0.258	0.020	0.15	0.1073	101	70	130				
Silver	0.0141	0.0010	0.02	0	71	70	130				
Zinc	0.0581	0.010	0.05	0.004801	107	70	130				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICPMS204-B_150914B: 94** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-001BMSD** Method: **E200.8**

Analysis Date: **09/14/15 17:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0503	0.0010	0.05	0	101	70	130	0.04974	1.1	20	
Iron	0.256	0.020	0.15	0.1073	99	70	130	0.2582	0.7	20	
Silver	0.0163	0.0010	0.02	0	81	70	130	0.01413	14	20	
Zinc	0.0583	0.010	0.05	0.004801	107	70	130	0.05806	0.4	20	

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICPMS204-B_150914B: 123** SampType: **Sample Matrix Spike** Lab ID: **H15090206-008BMS** Method: **E200.8**

Analysis Date: **09/14/15 18:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0494	0.0010	0.05	0	99	70	130				
Iron	0.171	0.020	0.15	0.02517	97	70	130				
Silver	0.0171	0.0010	0.02	0	86	70	130				
Zinc	0.104	0.010	0.05	0.05519	98	70	130				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109332

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150914B: 124** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-008BMSD** Method: **E200.8**

Analysis Date: **09/14/15 18:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0479	0.0010	0.05	0	96	70	130	0.0494	3.2	20	
Iron	0.172	0.020	0.15	0.02517	98	70	130	0.1706	0.8	20	
Silver	0.0181	0.0010	0.02	0	91	70	130	0.01713	5.6	20	
Zinc	0.104	0.010	0.05	0.05519	98	70	130	0.1042	0.0	20	

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICPMS204-B_150914B: 155** SampType: **Sample Matrix Spike** Lab ID: **H15090206-018BMS** Method: **E200.8**

Analysis Date: **09/14/15 20:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0485	0.0010	0.05	0	97	70	130				
Iron	0.163	0.020	0.15	0.0185	96	70	130				
Silver	0.0178	0.0010	0.02	0	89	70	130				
Zinc	0.0894	0.010	0.05	0.03737	104	70	130				

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Run ID :Run Order: **ICPMS204-B_150914B: 156** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-018BMSD** Method: **E200.8**

Analysis Date: **09/14/15 20:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0484	0.0010	0.05	0	97	70	130	0.04853	0.2	20	
Iron	0.164	0.020	0.15	0.0185	97	70	130	0.1629	0.7	20	
Silver	0.0188	0.0010	0.02	0	94	70	130	0.01783	5.1	20	
Zinc	0.0887	0.010	0.05	0.03737	103	70	130	0.08945	0.8	20	

Associated samples: **H15090206-001B, H15090206-002B, H15090206-003B, H15090206-004B, H15090206-005B, H15090206-006B, H15090206-007B, H15090206-008B, H15090206-009B, H15090206-010B, H15090206-011B, H15090206-012B, H15090206-013B, H15090206-014B, H15090206-015B, H15090206-016B, H15090206-017B, H15090206-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109332

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150914B: 177** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **09/14/15 21:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0301	0.0010	0.03	0	100	90	110				
Iron	0.313	0.020	0.3	0	104	90	110				
Silver	0.0306	0.0050	0.03	0	102	90	110				
Zinc	0.0642	0.010	0.06	0	107	90	110				

Associated samples: **H15090206-001B, H15090206-001C, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-003C, H15090206-004B, H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B, H15090206-014C, H15090206-015B, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Run ID :Run Order: **ICPMS204-B_150914B: 179** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/14/15 21:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 4	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	6.00E-06	0.0010		0		0	0				
Iron	94.5	0.020	100	0	95	70	130				
Silver	0.0184	0.0050	0.02	0	92	70	130				
Zinc	0.0107	0.010	0.01	0	107	70	130				

Associated samples: **H15090206-001B, H15090206-001C, H15090206-002B, H15090206-002C, H15090206-003B, H15090206-003C, H15090206-004B, H15090206-004C, H15090206-005B, H15090206-005C, H15090206-006B, H15090206-006C, H15090206-007B, H15090206-007C, H15090206-008B, H15090206-008C, H15090206-009B, H15090206-009C, H15090206-010B, H15090206-010C, H15090206-011B, H15090206-011C, H15090206-012B, H15090206-012C, H15090206-013B, H15090206-013C, H15090206-014B, H15090206-014C, H15090206-015B, H15090206-016B, H15090206-016C, H15090206-017B, H15090206-017C, H15090206-018B, H15090206-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109339

Date: *23-Oct-15*

Run ID :Run Order: **FIA202-HE_150914A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E365.1**

Analysis Date: **09/14/15 14:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.242	0.010	0.25	0	97	90	110				

Associated samples: **H15090206-001D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA202-HE_150914A: 10** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **09/14/15 14:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.0963	0.010	0.1	0	96	90	110				

Associated samples: **H15090206-001D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA202-HE_150914A: 11** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E365.1**

Analysis Date: **09/14/15 14:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.000430	0.010		0		0	0				

Associated samples: **H15090206-001D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA202-HE_150914A: 27** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **09/14/15 14:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.0962	0.010	0.1	0	96	90	110				

Associated samples: **H15090206-001D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA202-HE_150914A: 41** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **09/14/15 15:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.0976	0.010	0.1	0	98	90	110				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109339

Date: *23-Oct-15*

Run ID :Run Order: **FIA202-HE_150914A: 41** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **09/14/15 15:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15090206-001D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109340

Date: *23-Oct-15*

Run ID :Run Order: **FIA203-HE_150914B: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E350.1**

Analysis Date: **09/14/15 14:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	9.61	0.25	9.25	0	104	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150914B: 8** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E350.1**

Analysis Date: **09/14/15 14:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	1.04	0.055	1	0	104	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150914B: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E350.1**

Analysis Date: **09/14/15 14:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	-0.0308	0.050		0		0	0				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150914B: 23** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**

Analysis Date: **09/14/15 14:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.520	0.050	0.5	0	104	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109340

Date: *23-Oct-15*

Run ID :Run Order: **FIA203-HE_150914B: 26** SampType: **Sample Matrix Spike** Lab ID: **H15090199-003DMS** Method: **E350.1**

Analysis Date: **09/14/15 14:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.856	0.055	1	0	86	80	120				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150914B: 27** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090199-003DMSD** Method: **E350.1**

Analysis Date: **09/14/15 14:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.891	0.055	1	0	89	80	120	0.8561	4.0	10	

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150914B: 37** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**

Analysis Date: **09/14/15 14:43** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.524	0.050	0.5	0	105	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150914B: 40** SampType: **Sample Matrix Spike** Lab ID: **H15090206-007DMS** Method: **E350.1**

Analysis Date: **09/14/15 14:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	1.01	0.055	1	0.08724	92	80	120				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109340

Date: *23-Oct-15*

Run ID :Run Order: **FIA203-HE_150914B: 41** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-007DMSD** Method: **E350.1**

Analysis Date: **09/14/15 14:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	1.01	0.055	1	0.08724	**93**	80	120	1.011	**0.3**	10	

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150914B: 51** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**

Analysis Date: **09/14/15 14:59** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.519	0.050	0.5	0	**104**	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150914B: 54** SampType: **Sample Matrix Spike** Lab ID: **H15090206-017DMS** Method: **E350.1**

Analysis Date: **09/14/15 15:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.976	0.055	1	0	**98**	80	120				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150914B: 55** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-017DMSD** Method: **E350.1**

Analysis Date: **09/14/15 15:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	1.02	0.055	1	0	**102**	80	120	0.9761	**4.1**	10	

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109350

Date: *23-Oct-15*

Run ID :Run Order: **IC102-H_150914A: 23** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E300.0**

Analysis Date: **09/14/15 13:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	103	1.0	100	0	103	90	110				
Sulfate	410	1.0	400	0	103	90	110				

Associated samples: **H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **IC102-H_150914A: 24** SampType: **Method Blank** Lab ID: **ICB** Method: **E300.0**

Analysis Date: **09/14/15 13:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	0.09	0.009									
Sulfate	0.04	0.02									

Associated samples: **H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **IC102-H_150914A: 25** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E300.0**

Analysis Date: **09/14/15 13:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	48.9	1.0	50	0.086	98	90	110				
Sulfate	197	1.0	200	0.045	99	90	110				

Associated samples: **H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **IC102-H_150914A: 27** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV091415-1** Method: **E300.0**

Analysis Date: **09/14/15 14:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	102	1.0	100	0	102	90	110				
Sulfate	408	1.0	400	0	102	90	110				

Associated samples: **H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **IC102-H_150914A: 31** SampType: **Sample Matrix Spike** Lab ID: **H15090206-010AMS** Method: **E300.0**

Analysis Date: **09/14/15 14:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	99.5	1.0	50	46.58	106	90	110				
Sulfate	314	1.0	200	98.55	108	90	110				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109350

Date: *23-Oct-15*

Run ID :Run Order: **IC102-H_150914A: 31** SampType: **Sample Matrix Spike** Lab ID: **H15090206-010AMS** Method: **E300.0**
Analysis Date: **09/14/15 14:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **IC102-H_150914A: 32** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-010AMSD** Method: **E300.0**
Analysis Date: **09/14/15 14:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	100	1.0	50	46.58	107	90	110	99.49	0.7	20	
Sulfate	318	1.0	200	98.55	110	90	110	313.7	1.4	20	

Associated samples: **H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **IC102-H_150914A: 45** SampType: **Sample Matrix Spike** Lab ID: **H15090209-004AMS** Method: **E300.0**
Analysis Date: **09/14/15 17:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	161	1.0	50	109.2	103	90	110				
Sulfate	570	1.0	200	351.5	109	90	110				

Associated samples: **H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **IC102-H_150914A: 46** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090209-004AMSD** Method: **E300.0**
Analysis Date: **09/14/15 17:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	161	1.0	50	109.2	104	90	110	160.8	0.2	20	
Sulfate	576	1.0	200	351.5	112	90	110	569.6	1.1	20	S

Associated samples: **H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109365

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150915A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **09/15/15 09:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0302	0.0010	0.03	0	101	90	110				
Zinc	0.0635	0.010	0.06	0	106	90	110				

Associated samples: **H15090206-015C**

Run ID :Run Order: **ICPMS204-B_150915A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/15/15 09:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	-1.20E-05	0.0010		0							
Zinc	0.000916	0.010		0							

Associated samples: **H15090206-015C**

Run ID :Run Order: **ICPMS204-B_150915A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/15/15 09:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	-5.00E-06	0.0010		0		0	0				
Zinc	0.0106	0.010	0.01	0	106	70	130				

Associated samples: **H15090206-015C**

Run ID :Run Order: **ICPMS204-B_150915A: 177** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **09/15/15 18:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.0309	0.0010	0.03	0	103	90	110				
Zinc	0.0632	0.010	0.06	0	105	90	110				

Associated samples: **H15090206-015C**

Run ID :Run Order: **ICPMS204-B_150915A: 178** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/15/15 18:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	2.30E-05	0.0010		0							
Zinc	0.000966	0.010		0							

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109365

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150915A: 178** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **09/15/15 18:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15090206-015C**

Run ID :Run Order: **ICPMS204-B_150915A: 179** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **09/15/15 18:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	8.00E-06	0.0010		0		0	0				
Zinc	0.0106	0.010	0.01	0	**106**	70	130				

Associated samples: **H15090206-015C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109381

Date: *23-Oct-15*

Run ID :Run Order: **FIA203-HE_150915B: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E353.2**

Analysis Date: **09/15/15 10:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.08	0.010	1	0	108	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 10** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E353.2**

Analysis Date: **09/15/15 10:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.01	0.011	1	0	101	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 12** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E353.2**

Analysis Date: **09/15/15 10:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	-0.00795	0.010		0		0	0				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 14** SampType: **Method Blank** Lab ID: **MBLK** Method: **E353.2**

Analysis Date: **09/15/15 10:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	ND	0.003									

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109381

Date: *23-Oct-15*

Run ID :Run Order: **FIA203-HE_150915B: 30** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**

Analysis Date: **09/15/15 10:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.521	0.010	0.5	0	104	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 44** SampType: **Sample Matrix Spike** Lab ID: **H15090202-001AMS** Method: **E353.2**

Analysis Date: **09/15/15 11:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	32.6	0.22	20	13.82	94	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 45** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090202-001AMSD** Method: **E353.2**

Analysis Date: **09/15/15 11:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	32.6	0.22	20	13.82	94	90	110	32.6	0.1	20	

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 47** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**

Analysis Date: **09/15/15 11:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.514	0.010	0.5	0	103	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109381

Date: *23-Oct-15*

Run ID :Run Order: **FIA203-HE_150915B: 61** SampType: **Sample Matrix Spike** Lab ID: **H15090206-007DMS** Method: **E353.2**

Analysis Date: **09/15/15 11:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	7.58	0.055	5	2.71	97	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 62** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-007DMSD** Method: **E353.2**

Analysis Date: **09/15/15 11:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	7.58	0.055	5	2.71	97	90	110	7.579	0.1	20	

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 64** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**

Analysis Date: **09/15/15 11:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.520	0.010	0.5	0	104	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 66** SampType: **Sample Matrix Spike** Lab ID: **H15090206-017DMS** Method: **E353.2**

Analysis Date: **09/15/15 11:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.947	0.011	1	0	95	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109381

Date: *23-Oct-15*

Run ID :Run Order: **FIA203-HE_150915B: 67** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-017DMSD** Method: **E353.2**

Analysis Date: **09/15/15 11:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.987	0.011	1	0	99	90	110	0.9471	4.1	20	

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 106** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**

Analysis Date: **09/15/15 12:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.512	0.010	0.5	0	102	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 121** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**

Analysis Date: **09/15/15 12:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.522	0.010	0.5	0	104	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 123** SampType: **Sample Matrix Spike** Lab ID: **H15080405-001AMS** Method: **E353.2**

Analysis Date: **09/15/15 12:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.963	0.011	1	0	96	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109381

Date: *23-Oct-15*

Run ID :Run Order: **FIA203-HE_150915B: 124** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15080405-001AMSD** Method: **E353.2**

Analysis Date: **09/15/15 12:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.989	0.011	1	0	**99**	90	110	0.9627	**2.7**	20	

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 153** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E353.2**

Analysis Date: **09/15/15 14:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.06	0.010	1	0	**106**	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 154** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E353.2**

Analysis Date: **09/15/15 14:17** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.952	0.011	1	0	**95**	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 155** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**

Analysis Date: **09/15/15 14:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.517	0.010	0.5	0	**103**	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109381

Date: *23-Oct-15*

Run ID :Run Order: **FIA203-HE_150915B: 156** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E353.2**

Analysis Date: **09/15/15 14:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	-0.0104	0.010		0		0	0				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 158** SampType: **Method Blank** Lab ID: **MBLK** Method: **E353.2**

Analysis Date: **09/15/15 14:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	ND	0.003									

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 160** SampType: **Sample Matrix Spike** Lab ID: **H15090206-011DMS** Method: **E353.2**

Analysis Date: **09/15/15 14:24** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	7.40	0.055	5	2.612	**96**	90	110				

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Run ID :Run Order: **FIA203-HE_150915B: 161** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15090206-011DMSD** Method: **E353.2**

Analysis Date: **09/15/15 14:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	7.47	0.055	5	2.612	**97**	90	110	7.403	**0.9**	20	

Associated samples: **H15090206-001D, H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D, H15090206-010D, H15090206-011D, H15090206-012D, H15090206-013D, H15090206-014D, H15090206-015D, H15090206-016D, H15090206-017D, H15090206-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109382

Date: *23-Oct-15*

Run ID :Run Order: **FIA202-HE_150915A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E365.1**

Analysis Date: **09/15/15 14:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.226	0.010	0.25	0	90	90	110				

Associated samples: **H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D**

Run ID :Run Order: **FIA202-HE_150915A: 10** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **09/15/15 14:48** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.0911	0.010	0.1	0	91	90	110				

Associated samples: **H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D**

Run ID :Run Order: **FIA202-HE_150915A: 11** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E365.1**

Analysis Date: **09/15/15 14:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.00514	0.010		0		0	0				

Associated samples: **H15090206-002D, H15090206-003D, H15090206-004D, H15090206-005D, H15090206-006D, H15090206-007D, H15090206-008D, H15090206-009D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109430

Date: *23-Oct-15*

Run ID :Run Order: **FIA203-HE_150916D: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**

Analysis Date: **09/16/15 13:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.465	0.10	0.5	0	93	90	110				

Associated samples: **H15090206-007A**

Run ID :Run Order: **FIA203-HE_150916D: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**

Analysis Date: **09/16/15 13:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.0121	0.10		0		0	0				

Associated samples: **H15090206-007A**

Run ID :Run Order: **FIA203-HE_150916D: 100** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**

Analysis Date: **09/16/15 15:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.477	0.10	0.5	0	95	90	110				

Associated samples: **H15090206-007A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109458

Date: *23-Oct-15*

Run ID :Run Order: **FIA203-HE_150918A: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**

Analysis Date: **09/17/15 11:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.500	0.10	0.5	0	100	90	110				

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **FIA203-HE_150918A: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**

Analysis Date: **09/17/15 11:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.0156	0.10		0		0	0				

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **FIA203-HE_150918A: 26** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**

Analysis Date: **09/17/15 11:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.485	0.10	0.5	0	97	90	110				

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109501

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150920A: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **09/20/15 18:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.12	0.10	4	0	103	90	110				
Barium	0.817	0.10	0.8	0	102	90	110				
Beryllium	0.409	0.0010	0.4	0	102	90	110				
Copper	0.814	0.010	0.8	0	102	90	110				
Iron	3.86	0.020	4	0	97	90	110				
Manganese	3.98	0.010	4	0	100	90	110				
Nickel	0.785	0.010	0.8	0	98	90	110				
Vanadium	0.809	0.10	0.8	0	101	90	110				
Zinc	0.795	0.010	0.8	0	99	90	110				

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A, H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-031A, H15090206-032A, H15090206-034A, H15090206-035A, H15090206-038A, H15090206-040A, H15090206-041A, H15090206-043A, H15090206-044A, H15090206-046A, H15090206-047A**

Run ID :Run Order: **ICP2-HE_150920A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **09/20/15 19:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	538	0.10	500	0	108	80	120				
Barium	0.00428	0.10		0		0	0				
Beryllium	9.00E-05	0.0010		0		0	0				
Copper	-0.000870	0.010		0		0	0				
Iron	181	0.020	200	0	90	80	120				
Manganese	-0.0110	0.010		0		0	0				
Nickel	0.00514	0.010		0		0	0				
Vanadium	0.00114	0.10		0		0	0				
Zinc	0.00360	0.010		0		0	0				

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A, H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-031A, H15090206-032A, H15090206-034A, H15090206-035A, H15090206-038A, H15090206-040A, H15090206-041A, H15090206-043A, H15090206-044A, H15090206-046A, H15090206-047A**

Run ID :Run Order: **ICP2-HE_150920A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **09/20/15 19:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	538	0.10	500	0	108	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit; S - Spike Recovery outside accepted recovery limit; N - Analyte concentration was not sufficiently high to calculate RPD; J - Analyte detected below quantitation limits; R - RPD outside accepted recovery limits; A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109501

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150920A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **09/20/15 19:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	0.515	0.10	0.5	0	**103**	80	120				
Beryllium	0.500	0.0010	0.5	0	**100**	80	120				
Copper	0.519	0.010	0.5	0	**104**	80	120				
Iron	180	0.020	200	0	**90**	80	120				
Manganese	0.475	0.010	0.5	0	**95**	80	120				
Nickel	0.943	0.010	1	0	**94**	80	120				
Vanadium	0.494	0.10	0.5	0	**99**	80	120				
Zinc	1.01	0.010	1	0	**101**	80	120				

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A, H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-031A, H15090206-032A, H15090206-034A, H15090206-035A, H15090206-038A, H15090206-040A, H15090206-041A, H15090206-043A, H15090206-044A, H15090206-046A, H15090206-047A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109530

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150921B: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **09/21/15 09:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.03	0.10	4	0	101	90	110				
Barium	0.788	0.10	0.8	0	99	90	110				
Beryllium	0.406	0.0010	0.4	0	102	90	110				
Copper	0.794	0.010	0.8	0	99	90	110				
Iron	3.93	0.020	4	0	98	90	110				
Manganese	3.96	0.010	4	0	99	90	110				
Nickel	0.784	0.010	0.8	0	98	90	110				
Vanadium	0.800	0.10	0.8	0	100	90	110				
Zinc	0.829	0.010	0.8	0	104	90	110				

Associated samples: **H15090206-030A, H15090206-033A, H15090206-036A, H15090206-037A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

Run ID :Run Order: **ICP2-HE_150921B: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **09/21/15 10:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	523	0.10	500	0	105	80	120				
Barium	0.00263	0.10		0		0	0				
Beryllium	-3.00E-05	0.0010		0		0	0				
Copper	0.00452	0.010		0		0	0				
Iron	181	0.020	200	0	90	80	120				
Manganese	-0.00789	0.010		0		0	0				
Nickel	0.00406	0.010		0		0	0				
Vanadium	-0.000180	0.10		0		0	0				
Zinc	0.00456	0.010		0		0	0				

Associated samples: **H15090206-030A, H15090206-033A, H15090206-036A, H15090206-037A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

Run ID :Run Order: **ICP2-HE_150921B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **09/21/15 10:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	529	0.10	500	0	106	80	120				
Barium	0.504	0.10	0.5	0	101	80	120				
Beryllium	0.496	0.0010	0.5	0	99	80	120				
Copper	0.511	0.010	0.5	0	102	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109530

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150921B: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **09/21/15 10:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	182	0.020	200	0	**91**	80	120				
Manganese	0.470	0.010	0.5	0	**94**	80	120				
Nickel	0.911	0.010	1	0	**91**	80	120				
Vanadium	0.488	0.10	0.5	0	**98**	80	120				
Zinc	1.02	0.010	1	0	**102**	80	120				

Associated samples: **H15090206-030A, H15090206-033A, H15090206-036A, H15090206-037A, H15090206-039A, H15090206-042A, H15090206-045A, H15090206-048A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109616

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150923C: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **09/23/15 11:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.12	0.10	4	0	103	90	110				
Barium	0.815	0.10	0.8	0	102	90	110				
Beryllium	0.405	0.0010	0.4	0	101	90	110				
Copper	0.821	0.010	0.8	0	103	90	110				
Iron	3.97	0.020	4	0	99	90	110				
Manganese	4.01	0.010	4	0	100	90	110				
Nickel	0.781	0.010	0.8	0	98	90	110				
Vanadium	0.804	0.10	0.8	0	100	90	110				
Zinc	0.794	0.010	0.8	0	99	90	110				

Associated samples: **H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A, H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Run ID :Run Order: **ICP2-HE_150923C: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **09/23/15 11:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	537	0.10	500	0	107	80	120				
Barium	0.00235	0.10		0		0	0				
Beryllium	1.00E-05	0.0010		0		0	0				
Copper	-0.000280	0.010		0		0	0				
Iron	183	0.020	200	0	92	80	120				
Manganese	-0.00715	0.010		0		0	0				
Nickel	0.00884	0.010		0		0	0				
Vanadium	3.00E-05	0.10		0		0	0				
Zinc	0.00417	0.010		0		0	0				

Associated samples: **H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A, H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Run ID :Run Order: **ICP2-HE_150923C: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **09/23/15 11:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	526	0.10	500	0	105	80	120				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109616

Date: *23-Oct-15*

Run ID :Run Order: **ICP2-HE_150923C: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **09/23/15 11:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	0.514	0.10	0.5	0	**103**	80	120				
Beryllium	0.495	0.0010	0.5	0	**99**	80	120				
Copper	0.521	0.010	0.5	0	**104**	80	120				
Iron	182	0.020	200	0	**91**	80	120				
Manganese	0.479	0.010	0.5	0	**96**	80	120				
Nickel	0.917	0.010	1	0	**92**	80	120				
Vanadium	0.487	0.10	0.5	0	**97**	80	120				
Zinc	1.00	0.010	1	0	**100**	80	120				

Associated samples: **H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A, H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109679

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150924B: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **09/24/15 15:40** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0612	0.0010	0.06	0	**102**	90	110				
Arsenic	0.0623	0.0010	0.06	0	**104**	90	110				
Boron	0.0620	0.0010	0.06	0	**103**	90	110				
Cadmium	0.0314	0.0010	0.03	0	**105**	90	110				
Chromium	0.0608	0.0010	0.06	0	**101**	90	110				
Cobalt	0.0612	0.0010	0.06	0	**102**	90	110				
Lead	0.0592	0.0010	0.06	0	**99**	90	110				
Molybdenum	0.0592	0.0010	0.06	0	**99**	90	110				
Selenium	0.0626	0.0010	0.06	0	**104**	90	110				
Silver	0.0307	0.0010	0.03	0	**102**	90	110				
Uranium	0.0585	0.00030	0.06	0	**97**	90	110				

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A, H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-034A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A, H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109687

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **09/25/15 10:18** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0575	0.0010	0.06	0	96	90	110				
Arsenic	0.0601	0.0010	0.06	0	100	90	110				
Cadmium	0.0306	0.0010	0.03	0	102	90	110				
Chromium	0.0596	0.0010	0.06	0	99	90	110				
Cobalt	0.0596	0.0010	0.06	0	99	90	110				
Lead	0.0577	0.0010	0.06	0	96	90	110				
Molybdenum	0.0582	0.0010	0.06	0	97	90	110				
Selenium	0.0593	0.0010	0.06	0	99	90	110				
Silver	0.0294	0.0010	0.03	0	98	90	110				
Uranium	0.0575	0.00030	0.06	0	96	90	110				

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A, H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-034A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A, H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A, H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Run ID :Run Order: **ICPMS204-B_150925B: 166** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **09/25/15 19:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0575	0.0010	0.06	0	96	90	110				
Arsenic	0.0600	0.0010	0.06	0	100	90	110				
Cadmium	0.0308	0.0010	0.03	0	103	90	110				
Chromium	0.0593	0.0010	0.06	0	99	90	110				
Cobalt	0.0605	0.0010	0.06	0	101	90	110				
Lead	0.0584	0.0010	0.06	0	97	90	110				
Molybdenum	0.0595	0.0010	0.06	0	99	90	110				
Selenium	0.0588	0.0010	0.06	0	98	90	110				
Silver	0.0298	0.0010	0.03	0	99	90	110				
Uranium	0.0564	0.00030	0.06	0	94	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109687

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150925B: 166** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **09/25/15 19:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 10	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A, H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-034A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A, H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A, H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109740

Date: *23-Oct-15*

Run ID :Run Order: **ICPMS204-B_150928A: 8** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **09/29/15 00:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.0617	0.0010	0.06	0	**103**	90	110				
Selenium	0.0632	0.0010	0.06	0	**105**	90	110				

Associated samples: **H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A, H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109875

Date: *23-Oct-15*

Run ID :Run Order: **SOIL DRYING OVEN 2_151001B: 9** SampType: **Sample Duplicate** Lab ID: **H15090206-059ADUP** Method: **D2974**

Analysis Date: **10/02/15 09:40** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	19.5	0.20		0				19.35	0.8	20	

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A, H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-034A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A, H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A, H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Run ID :Run Order: **SOIL DRYING OVEN 2_151001B: 1** SampType: **Sample Duplicate** Lab ID: **H15090206-066ADUP** Method: **D2974**

Analysis Date: **10/02/15 09:40** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	21.6	0.20		0				21.15	2.1	20	

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A, H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-034A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A, H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A, H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Run ID :Run Order: **SOIL DRYING OVEN 2_151001B: 2** SampType: **Sample Duplicate** Lab ID: **H15090206-020ADUP** Method: **D2974**

Analysis Date: **10/02/15 09:40** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	21.7	0.20		0				20.08	7.9	20	

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A, H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-034A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A, H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A, H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Run ID :Run Order: **SOIL DRYING OVEN 2_151001B: 3** SampType: **Sample Duplicate** Lab ID: **H15090206-029ADUP** Method: **D2974**

Analysis Date: **10/02/15 09:40** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	28.4	0.20		0				28.13	0.9	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R109875

Date: *23-Oct-15*

Run ID :Run Order: **SOIL DRYING OVEN 2_151001B: 3** SampType: **Sample Duplicate** Lab ID: **H15090206-029ADUP** Method: **D2974**

Analysis Date: **10/02/15 09:40** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A, H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-034A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A, H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A, H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Run ID :Run Order: **SOIL DRYING OVEN 2_151001B: 4** SampType: **Sample Duplicate** Lab ID: **H15090206-039ADUP** Method: **D2974**

Analysis Date: **10/02/15 09:40** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	21.3	0.20		0				19.24	**10.0**	20	

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A, H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-034A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A, H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A, H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Run ID :Run Order: **SOIL DRYING OVEN 2_151001B: 5** SampType: **Sample Duplicate** Lab ID: **H15090206-049ADUP** Method: **D2974**

Analysis Date: **10/02/15 09:40** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	61.7	0.20		0				61.69	**0.0**	20	

Associated samples: **H15090206-019A, H15090206-020A, H15090206-021A, H15090206-022A, H15090206-023A, H15090206-024A, H15090206-025A, H15090206-026A, H15090206-027A, H15090206-028A, H15090206-029A, H15090206-030A, H15090206-031A, H15090206-032A, H15090206-033A, H15090206-034A, H15090206-035A, H15090206-036A, H15090206-037A, H15090206-038A, H15090206-039A, H15090206-040A, H15090206-041A, H15090206-042A, H15090206-043A, H15090206-044A, H15090206-045A, H15090206-046A, H15090206-047A, H15090206-048A, H15090206-049A, H15090206-050A, H15090206-051A, H15090206-052A, H15090206-053A, H15090206-054A, H15090206-055A, H15090206-056A, H15090206-057A, H15090206-058A, H15090206-059A, H15090206-060A, H15090206-061A, H15090206-062A, H15090206-063A, H15090206-064A, H15090206-065A, H15090206-066A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: TSS150910A

Date: *23-Oct-15*

Run ID :Run Order: **ACCU-124 (14410200)_150910A: 1** SampType: **Method Blank** Lab ID: **MB-1_150910A** Method: **A2540 D**

Analysis Date: **09/10/15 13:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	0.1									

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **ACCU-124 (14410200)_150910A: 2** SampType: **Laboratory Control Sample** Lab ID: **LCS-2_150910A** Method: **A2540 D**

Analysis Date: **09/10/15 13:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	96.0	10	100	0	**96**	80	120				

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **ACCU-124 (14410200)_150910A: 4** SampType: **Sample Duplicate** Lab ID: **H15090199-001ADUP** Method: **A2540 D**

Analysis Date: **09/10/15 13:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	4.20	10		0				4.2		5	

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **ACCU-124 (14410200)_150910A: 1** SampType: **Sample Duplicate** Lab ID: **H15090206-008ADUP** Method: **A2540 D**

Analysis Date: **09/10/15 14:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	12.4	10		0				12	**3.3**	5	

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15090206
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: TSS150910A

Date: *23-Oct-15*

Run ID :Run Order: **ACCU-124 (14410200)_150910A: 2** SampType: **Method Blank** Lab ID: **MB-25_150910A** Method: **A2540 D**

Analysis Date: **09/10/15 14:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	0.1									

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **ACCU-124 (14410200)_150910A: 2** SampType: **Laboratory Control Sample** Lab ID: **LCS-26_150910A** Method: **A2540 D**

Analysis Date: **09/10/15 14:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	93.0	10	100	0	**93**	80	120				

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **ACCU-124 (14410200)_150910A: 2** SampType: **Sample Duplicate** Lab ID: **H15090206-018ADUP** Method: **A2540 D**

Analysis Date: **09/10/15 14:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	7.40	10		0				7.6		5	

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Run ID :Run Order: **ACCU-124 (14410200)_150910A: 3** SampType: **Sample Duplicate** Lab ID: **H15090203-001BDUP** Method: **A2540 D**

Analysis Date: **09/10/15 15:36** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	34.0	10		0				35	**2.9**	5	

Associated samples: **H15090206-001A, H15090206-002A, H15090206-003A, H15090206-004A, H15090206-005A, H15090206-006A, H15090206-007A, H15090206-008A, H15090206-009A, H15090206-010A, H15090206-011A, H15090206-012A, H15090206-013A, H15090206-014A, H15090206-015A, H15090206-016A, H15090206-017A, H15090206-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Work Order Receipt Checklist

MT DEQ-Federal Superfund H15090206

Login completed by:

Reviewed by: BL2000\rwilliams

Reviewed Date: 9/11/2015

Date Received: 9/10/2015

Received by: bjs

Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	°C See Comments		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	Not Applicable ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

Cooler 1 was received at 1.0 °C, Cooler 2 at 3.2 °C, Cooler 3 at 1.0 °C, Cooler 4 at 4.0 °C, Cooler 5 at 3.8 °C. Temperature taken from a templ blank, all on ice. Sediment samples were received in Box 1 at 20.2 °C, Box 2 at 19.9 °C. Sample SS-06G coolection time on containers 16:00, COC 15:00. Sample SS-07 collection time on containers 15:00, COC 14:15. Sample Field duplicate #2 collection time on containers 11:00, COC 11:30. Sample SS-13 collection time on containers 18:00, COC 18:30. Sample Field blank #1 collection time 9:45 on containers, 9:30 on COC. Per note from G.Ingman, please use collection times from COC. abb 9/10/15

ANALYTICAL SUMMARY REPORT

October 15, 2015

MT DEQ-Federal Superfund
PO Box 200901
Helena, MT 59620-0901

Work Order: H15090363 Quote ID: H1088 - Silver Bow Monitoring

Project Name: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor

Energy Laboratories Inc Helena MT received the following 47 samples for MT DEQ-Federal Superfund on 9/17/2015 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H15090363-001	LYS-01	09/15/15 14:24	09/17/15	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Conductivity Mercury, Dissolved Hardness as CaCO3 Anions by Ion Chromatography Preparation, Dissolved Filtration Digestion, Mercury by CVAA Digestion, Mercury by CVAA
H15090363-002	LYS-02	09/15/15 14:36	09/17/15	Aqueous	Same As Above
H15090363-003	LYS-03	09/15/15 14:12	09/17/15	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Mercury, Dissolved Hardness as CaCO3 Anions by Ion Chromatography Preparation, Dissolved Filtration Digestion, Mercury by CVAA Digestion, Mercury by CVAA
H15090363-004	LYS-04	09/15/15 13:05	09/17/15	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Conductivity Mercury, Dissolved Hardness as CaCO3 Anions by Ion Chromatography Preparation, Dissolved Filtration Digestion, Mercury by CVAA Digestion, Mercury by CVAA
H15090363-005	LYS-05	09/15/15 13:17	09/17/15	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Mercury, Dissolved Hardness as CaCO3 Anions by Ion Chromatography Preparation, Dissolved Filtration Digestion, Mercury by CVAA Digestion, Mercury by CVAA
H15090363-006	LYS-06	09/15/15 14:20	09/17/15	Aqueous	Same As Above
H15090363-007	LYS-07	09/15/15 14:29	09/17/15	Aqueous	Metals by ICP/ICPMS, Dissolved Hardness as CaCO3 Preparation, Dissolved Filtration Digestion, Mercury by CVAA
H15090363-008	LYS-08	09/15/15 14:05	09/17/15	Aqueous	Services Provided by Lab

ANALYTICAL SUMMARY REPORT

H15090363-009	GW-CR-ES	09/17/15 8:55	09/17/15	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Conductivity Mercury, Dissolved Hardness as CaCO3 Anions by Ion Chromatography Preparation, Dissolved Filtration Digestion, Mercury by CVAA Digestion, Mercury by CVAA
H15090363-010	GW-FM-ES	09/17/15 10:00	09/17/15	Aqueous	Same As Above
H15090363-011	GW-1052R	09/15/15 18:15	09/17/15	Aqueous	Same As Above
H15090363-012	GW-1010R	09/15/15 17:20	09/17/15	Aqueous	Same As Above
H15090363-013	MW-2D	09/15/15 14:35	09/17/15	Aqueous	Same As Above
H15090363-014	MW-2C	09/15/15 14:00	09/17/15	Aqueous	Same As Above
H15090363-015	MW-2B	09/15/15 13:30	09/17/15	Aqueous	Same As Above
H15090363-016	LYP-07	09/15/15 15:50	09/17/15	Aqueous	Same As Above
H15090363-017	1GW-1056	09/15/15 16:00	09/17/15	Aqueous	Same As Above
H15090363-018	GW-FR-ES	09/16/15 19:35	09/17/15	Aqueous	Same As Above
H15090363-019	GW-ST-BG	09/16/15 18:15	09/17/15	Aqueous	Same As Above
H15090363-020	GW-ST-ES	09/16/15 18:50	09/17/15	Aqueous	Same As Above
H15090363-021	GW-CR-WS	09/16/15 17:00	09/17/15	Aqueous	Same As Above
H15090363-022	GW-CR-BG	09/16/15 16:15	09/17/15	Aqueous	Same As Above
H15090363-023	GW-FM-WS	09/16/15 15:15	09/17/15	Aqueous	Same As Above
H15090363-024	GW-MC-SS	09/16/15 14:20	09/17/15	Aqueous	Same As Above
H15090363-025	GW-MC-BG	09/16/15 13:40	09/17/15	Aqueous	Same As Above
H15090363-026	P-114	09/16/15 12:30	09/17/15	Aqueous	Same As Above
H15090363-027	GW-1004A	09/16/15 11:20	09/17/15	Aqueous	Same As Above
H15090363-028	GW-1003R	09/16/15 10:50	09/17/15	Aqueous	Same As Above
H15090363-029	GW-RK-BG	09/16/15 9:00	09/17/15	Aqueous	Same As Above
H15090363-030	MW-10	09/17/15 13:00	09/17/15	Aqueous	Same As Above
H15090363-031	GW-FM-BG	09/17/15 9:10	09/17/15	Aqueous	Same As Above
H15090363-032	GW-FM-BG Field Dup	09/17/15 9:15	09/17/15	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Conductivity Mercury, Dissolved Hardness as CaCO3 Anions by Ion Chromatography Preparation, Dissolved Filtration Digestion, Mercury by CVAA

ANALYTICAL SUMMARY REPORT

H15090363-033	GW-FR-BG	09/16/15 19:40	09/17/15	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Conductivity Mercury, Dissolved Hardness as CaCO3 Anions by Ion Chromatography Preparation, Dissolved Filtration Digestion, Mercury by CVAA Digestion, Mercury by CVAA
H15090363-034	GW-FR-WS	09/16/15 19:50	09/17/15	Aqueous	Same As Above
H15090363-035	GW-ST-WS	09/16/15 18:30	09/17/15	Aqueous	Same As Above
H15090363-036	MW-01	09/16/15 9:55	09/17/15	Aqueous	Same As Above
H15090363-037	P-58A	09/17/15 11:50	09/17/15	Aqueous	Same As Above
H15090363-038	P-37A	09/16/15 12:45	09/17/15	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity Conductivity Mercury, Dissolved Hardness as CaCO3 Anions by Ion Chromatography Preparation, Dissolved Filtration Digestion, Mercury by CVAA
H15090363-039	GW-MC-NS	09/17/15 10:20	09/17/15	Aqueous	Same As Above
H15090363-040	P-39R	09/17/15 10:45	09/17/15	Aqueous	Same As Above
H15090363-041	GW-ST-WS Field Dup	09/16/15 18:30	09/17/15	Aqueous	Same As Above
H15090363-042	P-58A Field Blank	09/17/15 11:20	09/17/15	Aqueous	Same As Above
H15090363-043	GW-FR-WS Field Blank	09/16/15 20:00	09/17/15	Aqueous	Same As Above
H15090363-044	P-06A	09/15/15 18:00	09/17/15	Aqueous	Same As Above
H15090363-045	MW-2A	09/15/15 15:00	09/17/15	Aqueous	Same As Above
H15090363-046	MW-2A Field Dup	09/15/15 15:00	09/17/15	Aqueous	Same As Above
H15090363-047	LYP-07 Field Blank	09/15/15 15:45	09/17/15	Aqueous	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monit
Work Order: H15090363

Report Date: 10/15/15

CASE NARRATIVE

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.Prep Comments for Sample H15090363-032A, Test PRP-FILT-W: The prep hold time was exceeded by 13.2 days.
Comments imported for SUBBED Workorder: B15100651
Prep Comments for Sample H15090363-004A, Test PRP-HG-245.1-LL: The prep hold time was exceeded by 0.896 days.
End of comments imported for SUBBED Workorder: B15100651
Prep Comments for Sample H15090363-043A, Test PRP-FILT-W: The prep hold time was exceeded by 14.8 days.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-001
Client Sample ID: LYS-01

Report Date: 10/15/15
Collection Date: 09/15/15 14:24
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	170	mg/L		4		A2320 B	09/23/15 09:40 / SRW
Bicarbonate as HCO3	210	mg/L		4		A2320 B	09/23/15 09:40 / SRW
Chloride	21	mg/L		1		E300.0	09/22/15 20:37 / SRW
Sulfate	182	mg/L		1		E300.0	09/22/15 20:37 / SRW
Hardness as CaCO3	326	mg/L		1		A2340 B	09/22/15 13:10 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 15:11 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 15:11 / dck
Arsenic	0.004	mg/L		0.001		E200.8	09/28/15 15:11 / dck
Barium	0.042	mg/L		0.003		E200.8	09/28/15 15:11 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 15:11 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 13:10 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 15:11 / dck
Calcium	96	mg/L		1		E200.7	09/22/15 13:10 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 15:11 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 15:11 / dck
Copper	ND	mg/L		0.001		E200.8	09/28/15 15:11 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 15:11 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 15:11 / dck
Magnesium	21	mg/L		1		E200.7	09/22/15 13:10 / sld
Manganese	ND	mg/L		0.001		E200.8	09/28/15 15:11 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/09/15 15:11 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 15:11 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 15:11 / dck
Potassium	3	mg/L		1		E200.7	09/22/15 13:10 / sld
Selenium	0.005	mg/L		0.001		E200.8	09/28/15 15:11 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 15:11 / dck
Sodium	36	mg/L		1		E200.7	09/22/15 13:10 / sld
Uranium	0.0787	mg/L		0.0002		E200.8	09/28/15 15:11 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 15:11 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 15:11 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-002
Client Sample ID: LYS-02

Report Date: 10/15/15
Collection Date: 09/15/15 14:36
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	770	mg/L		4		A2320 B	09/23/15 11:00 / SRW
Bicarbonate as HCO3	940	mg/L		4		A2320 B	09/23/15 11:00 / SRW
Chloride	98	mg/L		1		E300.0	09/22/15 20:48 / SRW
Sulfate	9090	mg/L	D	2		E300.0	09/24/15 12:21 / SRW
Hardness as CaCO3	2250	mg/L		1		A2340 B	09/22/15 13:14 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 15:24 / dck
Antimony	0.0010	mg/L		0.0005		E200.8	09/28/15 15:24 / dck
Arsenic	0.034	mg/L		0.001		E200.8	09/28/15 15:24 / dck
Barium	0.015	mg/L		0.003		E200.8	09/28/15 15:24 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 15:24 / dck
Boron	0.6	mg/L		0.1		E200.7	09/22/15 13:14 / sld
Cadmium	0.00004	mg/L		0.00003		E200.8	09/28/15 15:24 / dck
Calcium	430	mg/L		1		E200.7	09/22/15 13:14 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 15:24 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 15:24 / dck
Copper	0.008	mg/L		0.001		E200.8	09/28/15 15:24 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 15:24 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 15:24 / dck
Magnesium	286	mg/L		1		E200.7	09/22/15 13:14 / sld
Manganese	ND	mg/L		0.001		E200.8	09/28/15 15:24 / dck
Mercury	5.8E-06	mg/L		5E-06		E245.1	10/09/15 15:14 / eli-b40
Molybdenum	0.062	mg/L		0.005		E200.8	09/28/15 15:24 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 15:24 / dck
Potassium	3	mg/L		1		E200.7	09/22/15 13:14 / sld
Selenium	0.046	mg/L		0.001		E200.8	09/28/15 15:24 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 15:24 / dck
Sodium	3360	mg/L		1		E200.7	09/23/15 17:52 / sld
Uranium	1.65	mg/L		0.0002		E200.8	09/28/15 15:24 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 15:24 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 15:24 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-003
Client Sample ID: LYS-03

Report Date: 10/15/15
Collection Date: 09/15/15 14:12
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	240	mg/L		4		A2320 B	09/23/15 09:54 / SRW
Bicarbonate as HCO3	290	mg/L		4		A2320 B	09/23/15 09:54 / SRW
Chloride	ND	mg/L		1		E300.0	09/23/15 01:37 / SRW
Sulfate	124	mg/L		1		E300.0	09/23/15 01:37 / SRW
Hardness as CaCO3	227	mg/L		1		A2340 B	09/22/15 11:43 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 15:30 / dck
Antimony	0.0008	mg/L		0.0005		E200.8	09/28/15 15:30 / dck
Arsenic	0.119	mg/L		0.001		E200.8	09/28/15 15:30 / dck
Barium	0.051	mg/L		0.003		E200.8	09/28/15 15:30 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 15:30 / dck
Boron	0.2	mg/L		0.1		E200.7	09/22/15 11:43 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 15:30 / dck
Calcium	68	mg/L		1		E200.7	09/22/15 11:43 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 15:30 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 15:30 / dck
Copper	0.002	mg/L		0.001		E200.8	09/28/15 15:30 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 15:30 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 15:30 / dck
Magnesium	14	mg/L		1		E200.7	09/22/15 11:43 / sld
Manganese	0.002	mg/L		0.001		E200.8	09/28/15 15:30 / dck
Mercury	ND	mg/L	DH	0.0001		E245.1	10/13/15 16:04 / eli-b40
Molybdenum	0.037	mg/L		0.005		E200.8	09/28/15 15:30 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 15:30 / dck
Potassium	3	mg/L		1		E200.7	09/22/15 11:43 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 15:30 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 15:30 / dck
Sodium	69	mg/L		1		E200.7	09/22/15 11:43 / sld
Uranium	0.0076	mg/L		0.0002		E200.8	09/29/15 17:17 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 15:30 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 15:30 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-004
Client Sample ID: LYS-04

Report Date: 10/15/15
Collection Date: 09/15/15 13:05
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	270	mg/L		4		A2320 B	09/23/15 10:02 / SRW
Bicarbonate as HCO3	330	mg/L		4		A2320 B	09/23/15 10:02 / SRW
Chloride	4	mg/L		1		E300.0	09/22/15 20:59 / SRW
Sulfate	452	mg/L		1		E300.0	09/22/15 20:59 / SRW
Hardness as CaCO3	401	mg/L		1		A2340 B	09/22/15 13:19 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 15:33 / dck
Antimony	0.0017	mg/L		0.0005		E200.8	09/28/15 15:33 / dck
Arsenic	0.068	mg/L		0.001		E200.8	09/28/15 15:33 / dck
Barium	0.070	mg/L		0.003		E200.8	09/28/15 15:33 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 15:33 / dck
Boron	0.1	mg/L		0.1		E200.7	09/22/15 13:19 / sld
Cadmium	0.00004	mg/L		0.00003		E200.8	09/28/15 15:33 / dck
Calcium	102	mg/L		1		E200.7	09/22/15 13:19 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 15:33 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 15:33 / dck
Copper	0.007	mg/L		0.001		E200.8	09/28/15 15:33 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 15:33 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 15:33 / dck
Magnesium	35	mg/L		1		E200.7	09/22/15 13:19 / sld
Manganese	ND	mg/L		0.001		E200.8	09/28/15 15:33 / dck
Mercury	0.0000456	mg/L	H	5E-06		E245.1	10/13/15 14:55 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 15:33 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 15:33 / dck
Potassium	15	mg/L		1		E200.7	09/22/15 13:19 / sld
Selenium	0.003	mg/L		0.001		E200.8	09/28/15 15:33 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 15:33 / dck
Sodium	166	mg/L		1		E200.7	09/23/15 17:55 / sld
Uranium	0.0269	mg/L		0.0002		E200.8	09/28/15 15:33 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 15:33 / dck
Zinc	0.009	mg/L		0.008		E200.8	09/28/15 15:33 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
H - Analysis performed past recommended holding time.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-005
Client Sample ID: LYS-05

Report Date: 10/15/15
Collection Date: 09/15/15 13:17
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	250	mg/L		4		A2320 B	09/23/15 10:08 / SRW
Bicarbonate as HCO3	310	mg/L		4		A2320 B	09/23/15 10:08 / SRW
Chloride	5	mg/L		1		E300.0	09/23/15 01:48 / SRW
Sulfate	3970	mg/L		1		E300.0	09/23/15 01:48 / SRW
Hardness as CaCO3	1610	mg/L		1		A2340 B	09/29/15 17:08 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 15:37 / dck
Antimony	0.0014	mg/L		0.0005		E200.8	09/28/15 15:37 / dck
Arsenic	0.016	mg/L		0.001		E200.8	09/28/15 15:37 / dck
Barium	0.015	mg/L		0.003		E200.8	09/28/15 15:37 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 15:37 / dck
Boron	2.2	mg/L		0.1		E200.7	09/22/15 11:46 / sld
Cadmium	0.00016	mg/L		0.00003		E200.8	09/28/15 15:37 / dck
Calcium	429	mg/L		1		E200.7	09/22/15 11:46 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 15:37 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 15:37 / dck
Copper	0.009	mg/L		0.001		E200.8	09/28/15 15:37 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 15:37 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 15:37 / dck
Magnesium	131	mg/L		1		E200.7	09/22/15 11:46 / sld
Manganese	ND	mg/L		0.001		E200.8	09/28/15 15:37 / dck
Mercury	ND	mg/L	DH	0.00002		E245.1	10/13/15 16:06 / eli-b40
Molybdenum	0.024	mg/L		0.005		E200.8	09/28/15 15:37 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 15:37 / dck
Potassium	22	mg/L		1		E200.7	09/22/15 11:46 / sld
Selenium	0.009	mg/L		0.001		E200.8	09/28/15 15:37 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 15:37 / dck
Sodium	1070	mg/L		1		E200.7	09/22/15 11:46 / sld
Uranium	1.70	mg/L		0.0002		E200.8	09/28/15 15:37 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 15:37 / dck
Zinc	0.011	mg/L		0.008		E200.8	09/28/15 15:37 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-006
Client Sample ID: LYS-06

Report Date: 10/15/15
Collection Date: 09/15/15 14:20
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	62	mg/L		4		A2320 B	09/23/15 10:14 / SRW
Bicarbonate as HCO3	75	mg/L		4		A2320 B	09/23/15 10:14 / SRW
Chloride	10	mg/L		1		E300.0	09/23/15 01:59 / SRW
Sulfate	934	mg/L		1		E300.0	09/23/15 01:59 / SRW
Hardness as CaCO3	540	mg/L		1		A2340 B	09/22/15 11:51 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 15:40 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 15:40 / dck
Arsenic	0.002	mg/L		0.001		E200.8	09/28/15 15:40 / dck
Barium	0.010	mg/L		0.003		E200.8	09/28/15 15:40 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 15:40 / dck
Boron	0.3	mg/L		0.1		E200.7	09/22/15 11:51 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 15:40 / dck
Calcium	166	mg/L		1		E200.7	09/22/15 11:51 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 15:40 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 15:40 / dck
Copper	0.007	mg/L		0.001		E200.8	09/28/15 15:40 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 15:40 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 15:40 / dck
Magnesium	31	mg/L		1		E200.7	09/22/15 11:51 / sld
Manganese	0.001	mg/L		0.001		E200.8	09/29/15 17:20 / dck
Mercury	ND	mg/L	DH	0.0001		E245.1	10/13/15 16:09 / eli-b40
Molybdenum	0.013	mg/L		0.005		E200.8	09/28/15 15:40 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 15:40 / dck
Potassium	ND	mg/L		1		E200.7	09/22/15 11:51 / sld
Selenium	0.002	mg/L		0.001		E200.8	09/28/15 15:40 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 15:40 / dck
Sodium	195	mg/L		1		E200.7	09/22/15 11:51 / sld
Uranium	0.0011	mg/L		0.0002		E200.8	09/29/15 17:20 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 15:40 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 15:40 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.
H - Analysis performed past recommended holding time.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-007
Client Sample ID: LYS-07

Report Date: 10/15/15
Collection Date: 09/15/15 14:29
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Hardness as CaCO3	988	mg/L		1		A2340 B	09/30/15 16:59 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 15:56 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 15:56 / dck
Arsenic	0.005	mg/L		0.001		E200.8	09/28/15 15:56 / dck
Barium	0.006	mg/L		0.003		E200.8	09/28/15 15:56 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 15:56 / dck
Boron	0.2	mg/L		0.1		E200.8	09/30/15 13:08 / dck
Cadmium	0.00007	mg/L		0.00003		E200.8	09/28/15 15:56 / dck
Calcium	281	mg/L		1		E200.8	09/28/15 15:56 / dck
Chromium	ND	mg/L		0.01		E200.8	09/28/15 15:56 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 15:56 / dck
Copper	0.004	mg/L		0.001		E200.8	09/28/15 15:56 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 15:56 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 15:56 / dck
Magnesium	70	mg/L		1		E200.8	09/28/15 15:56 / dck
Manganese	0.002	mg/L		0.001		E200.8	09/28/15 15:56 / dck
Molybdenum	0.090	mg/L		0.005		E200.8	09/28/15 15:56 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 15:56 / dck
Potassium	10	mg/L		1		E200.8	09/28/15 15:56 / dck
Selenium	0.002	mg/L		0.001		E200.8	09/28/15 15:56 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 15:56 / dck
Sodium	689	mg/L		1		E200.8	09/28/15 15:56 / dck
Uranium	0.279	mg/L		0.0002		E200.8	09/28/15 15:56 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 15:56 / dck
Zinc	0.072	mg/L		0.008		E200.8	09/28/15 15:56 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-009
Client Sample ID: GW-CR-ES

Report Date: 10/15/15
Collection Date: 09/17/15 08:55
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	93	mg/L		4		A2320 B	09/21/15 19:00 / SRW
Bicarbonate as HCO3	110	mg/L		4		A2320 B	09/21/15 19:00 / SRW
Chloride	38	mg/L		1		E300.0	09/21/15 19:57 / SRW
Sulfate	96	mg/L		1		E300.0	09/21/15 19:57 / SRW
Hardness as CaCO3	138	mg/L		1		A2340 B	09/22/15 11:54 / abb
METALS, DISSOLVED							
Aluminum	0.023	mg/L		0.009		E200.7	09/22/15 11:54 / sld
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 15:59 / dck
Arsenic	ND	mg/L		0.001		E200.8	09/28/15 15:59 / dck
Barium	0.020	mg/L		0.003		E200.8	09/28/15 15:59 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 15:59 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 11:54 / sld
Cadmium	0.00201	mg/L		0.00003		E200.8	09/28/15 15:59 / dck
Calcium	41	mg/L		1		E200.7	09/22/15 11:54 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 15:59 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 15:59 / dck
Copper	0.003	mg/L		0.001		E200.8	09/28/15 15:59 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 15:59 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 15:59 / dck
Magnesium	8	mg/L		1		E200.7	09/22/15 11:54 / sld
Manganese	0.018	mg/L		0.001		E200.8	09/28/15 15:59 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/12/15 15:27 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 15:59 / dck
Nickel	0.002	mg/L		0.002		E200.8	09/28/15 15:59 / dck
Potassium	3	mg/L		1		E200.7	09/22/15 11:54 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 15:59 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 15:59 / dck
Sodium	51	mg/L		1		E200.7	09/22/15 11:54 / sld
Uranium	0.0012	mg/L		0.0002		E200.8	09/29/15 18:06 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 15:59 / dck
Zinc	0.439	mg/L		0.008		E200.8	09/28/15 15:59 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-010
Client Sample ID: GW-FM-ES

Report Date: 10/15/15
Collection Date: 09/17/15 10:00
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	100	mg/L		4		A2320 B	09/21/15 19:08 / SRW
Bicarbonate as HCO3	130	mg/L		4		A2320 B	09/21/15 19:08 / SRW
Chloride	36	mg/L		1		E300.0	09/21/15 20:08 / SRW
Sulfate	71	mg/L		1		E300.0	09/21/15 20:08 / SRW
Hardness as CaCO3	152	mg/L		1		A2340 B	09/22/15 11:58 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 16:02 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 16:02 / dck
Arsenic	0.002	mg/L		0.001		E200.8	09/28/15 16:02 / dck
Barium	0.042	mg/L		0.003		E200.8	09/28/15 16:02 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 16:02 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 11:58 / sld
Cadmium	0.00021	mg/L		0.00003		E200.8	09/28/15 16:02 / dck
Calcium	46	mg/L		1		E200.7	09/22/15 11:58 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 16:02 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 16:02 / dck
Copper	0.002	mg/L		0.001		E200.8	09/28/15 16:02 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 16:02 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 16:02 / dck
Magnesium	9	mg/L		1		E200.7	09/22/15 11:58 / sld
Manganese	1.24	mg/L		0.001		E200.7	09/22/15 11:58 / sld
Mercury	ND	mg/L		5E-06		E245.1	10/12/15 15:29 / eli-b40
Molybdenum	0.006	mg/L		0.005		E200.8	09/28/15 16:02 / dck
Nickel	0.002	mg/L		0.002		E200.8	09/28/15 16:02 / dck
Potassium	5	mg/L		1		E200.7	09/22/15 11:58 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 16:02 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 16:02 / dck
Sodium	27	mg/L		1		E200.7	09/22/15 11:58 / sld
Uranium	0.0013	mg/L		0.0002		E200.8	09/29/15 18:09 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 16:02 / dck
Zinc	0.263	mg/L		0.008		E200.8	09/28/15 16:02 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-011
Client Sample ID: GW-1052R

Report Date: 10/15/15
Collection Date: 09/15/15 18:15
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	140	mg/L		4		A2320 B	09/21/15 19:17 / SRW
Bicarbonate as HCO3	170	mg/L		4		A2320 B	09/21/15 19:17 / SRW
Chloride	14	mg/L		1		E300.0	09/21/15 20:19 / SRW
Sulfate	306	mg/L		1		E300.0	09/21/15 20:19 / SRW
Hardness as CaCO3	231	mg/L		1		A2340 B	09/22/15 13:22 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 16:05 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 16:05 / dck
Arsenic	0.005	mg/L		0.001		E200.8	09/28/15 16:05 / dck
Barium	0.030	mg/L		0.003		E200.8	09/28/15 16:05 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 16:05 / dck
Boron	0.1	mg/L		0.1		E200.7	09/22/15 13:22 / sld
Cadmium	0.00278	mg/L		0.00003		E200.8	09/28/15 16:05 / dck
Calcium	72	mg/L		1		E200.7	09/22/15 13:22 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 16:05 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 16:05 / dck
Copper	0.181	mg/L		0.001		E200.8	09/28/15 16:05 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 16:05 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 16:05 / dck
Magnesium	12	mg/L		1		E200.7	09/22/15 13:22 / sld
Manganese	2.72	mg/L		0.001		E200.7	09/22/15 13:22 / sld
Mercury	ND	mg/L	D	0.00001		E245.1	10/09/15 15:19 / eli-b40
Molybdenum	0.026	mg/L		0.005		E200.8	09/28/15 16:05 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 16:05 / dck
Potassium	8	mg/L		1		E200.7	09/22/15 13:22 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 16:05 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 16:05 / dck
Sodium	95	mg/L		1		E200.7	09/22/15 13:22 / sld
Uranium	0.0034	mg/L		0.0002		E200.8	09/28/15 16:05 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 16:05 / dck
Zinc	1.71	mg/L		0.008		E200.7	09/22/15 13:22 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-012
Client Sample ID: GW-1010R

Report Date: 10/15/15
Collection Date: 09/15/15 17:20
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	290	mg/L		4		A2320 B	09/21/15 19:26 / SRW
Bicarbonate as HCO3	350	mg/L		4		A2320 B	09/21/15 19:26 / SRW
Chloride	20	mg/L		1		E300.0	09/21/15 20:31 / SRW
Sulfate	371	mg/L		1		E300.0	09/21/15 20:31 / SRW
Hardness as CaCO3	343	mg/L		1		A2340 B	09/22/15 13:26 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 16:09 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 16:09 / dck
Arsenic	0.002	mg/L		0.001		E200.8	09/28/15 16:09 / dck
Barium	0.023	mg/L		0.003		E200.8	09/28/15 16:09 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 16:09 / dck
Boron	0.1	mg/L		0.1		E200.7	09/22/15 13:26 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 16:09 / dck
Calcium	104	mg/L		1		E200.7	09/22/15 13:26 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 16:09 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 16:09 / dck
Copper	ND	mg/L		0.001		E200.8	09/28/15 16:09 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 16:09 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 16:09 / dck
Magnesium	20	mg/L		1		E200.7	09/22/15 13:26 / sld
Manganese	ND	mg/L		0.001		E200.8	09/28/15 16:09 / dck
Mercury	ND	mg/L	D	0.00001		E245.1	10/09/15 15:21 / eli-b40
Molybdenum	0.010	mg/L		0.005		E200.8	09/28/15 16:09 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 16:09 / dck
Potassium	7	mg/L		1		E200.7	09/22/15 13:26 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 16:09 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 16:09 / dck
Sodium	146	mg/L		1		E200.7	09/22/15 13:26 / sld
Uranium	0.102	mg/L		0.0002		E200.8	09/28/15 16:09 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 16:09 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 16:09 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-013
Client Sample ID: MW-2D

Report Date: 10/15/15
Collection Date: 09/15/15 14:35
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	160	mg/L		4		A2320 B	09/21/15 19:35 / SRW
Bicarbonate as HCO3	190	mg/L		4		A2320 B	09/21/15 19:35 / SRW
Chloride	25	mg/L		1		E300.0	09/21/15 20:42 / SRW
Sulfate	194	mg/L		1		E300.0	09/21/15 20:42 / SRW
Hardness as CaCO3	314	mg/L		1		A2340 B	09/22/15 14:15 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 16:21 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 16:21 / dck
Arsenic	0.006	mg/L		0.001		E200.8	09/28/15 16:21 / dck
Barium	0.044	mg/L		0.003		E200.8	09/28/15 16:21 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 16:21 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 14:15 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 16:21 / dck
Calcium	93	mg/L		1		E200.7	09/22/15 14:15 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 16:21 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 16:21 / dck
Copper	ND	mg/L		0.001		E200.8	09/28/15 16:21 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 16:21 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 16:21 / dck
Magnesium	20	mg/L		1		E200.7	09/22/15 14:15 / sld
Manganese	ND	mg/L		0.001		E200.8	09/28/15 16:21 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/09/15 15:24 / eli-b40
Molybdenum	0.005	mg/L		0.005		E200.8	09/28/15 16:21 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 16:21 / dck
Potassium	4	mg/L		1		E200.7	09/22/15 14:15 / sld
Selenium	0.005	mg/L		0.001		E200.8	09/28/15 16:21 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 16:21 / dck
Sodium	29	mg/L		1		E200.7	09/22/15 14:15 / sld
Uranium	0.0521	mg/L		0.0002		E200.8	09/28/15 16:21 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 16:21 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 16:21 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-014
Client Sample ID: MW-2C

Report Date: 10/15/15
Collection Date: 09/15/15 14:00
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	09/21/15 19:44 / SRW
Bicarbonate as HCO3	130	mg/L		4		A2320 B	09/21/15 19:44 / SRW
Chloride	23	mg/L		1		E300.0	09/21/15 20:53 / SRW
Sulfate	165	mg/L		1		E300.0	09/21/15 20:53 / SRW
Hardness as CaCO3	235	mg/L		1		A2340 B	09/22/15 14:19 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 16:25 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 16:25 / dck
Arsenic	0.006	mg/L		0.001		E200.8	09/28/15 16:25 / dck
Barium	0.020	mg/L		0.003		E200.8	09/28/15 16:25 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 16:25 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 14:19 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 16:25 / dck
Calcium	69	mg/L		1		E200.7	09/22/15 14:19 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 16:25 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 16:25 / dck
Copper	ND	mg/L		0.001		E200.8	09/28/15 16:25 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 16:25 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 16:25 / dck
Magnesium	15	mg/L		1		E200.7	09/22/15 14:19 / sld
Manganese	ND	mg/L		0.001		E200.8	09/28/15 16:25 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/09/15 15:29 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 16:25 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 16:25 / dck
Potassium	3	mg/L		1		E200.7	09/22/15 14:19 / sld
Selenium	0.002	mg/L		0.001		E200.8	09/28/15 16:25 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 16:25 / dck
Sodium	32	mg/L		1		E200.7	09/22/15 14:19 / sld
Uranium	0.0088	mg/L		0.0002		E200.8	09/28/15 16:25 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 16:25 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 16:25 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-015
Client Sample ID: MW-2B

Report Date: 10/15/15
Collection Date: 09/15/15 13:30
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	95	mg/L		4		A2320 B	09/21/15 19:52 / SRW
Bicarbonate as HCO3	120	mg/L		4		A2320 B	09/21/15 19:52 / SRW
Chloride	21	mg/L		1		E300.0	09/21/15 21:04 / SRW
Sulfate	134	mg/L		1		E300.0	09/21/15 21:04 / SRW
Hardness as CaCO3	218	mg/L		1		A2340 B	09/22/15 14:23 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 16:37 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 16:37 / dck
Arsenic	0.010	mg/L		0.001		E200.8	09/28/15 16:37 / dck
Barium	0.032	mg/L		0.003		E200.8	09/28/15 16:37 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 16:37 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 14:23 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 16:37 / dck
Calcium	62	mg/L		1		E200.7	09/22/15 14:23 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 16:37 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 16:37 / dck
Copper	0.002	mg/L		0.001		E200.8	09/28/15 16:37 / dck
Iron	0.06	mg/L		0.02		E200.8	09/28/15 16:37 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 16:37 / dck
Magnesium	15	mg/L		1		E200.7	09/22/15 14:23 / sld
Manganese	0.002	mg/L		0.001		E200.8	09/28/15 16:37 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/09/15 15:37 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 16:37 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 16:37 / dck
Potassium	4	mg/L		1		E200.7	09/22/15 14:23 / sld
Selenium	0.002	mg/L		0.001		E200.8	09/28/15 16:37 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 16:37 / dck
Sodium	25	mg/L		1		E200.7	09/22/15 14:23 / sld
Uranium	0.0050	mg/L		0.0002		E200.8	09/28/15 16:37 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 16:37 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 16:37 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-016
Client Sample ID: LYP-07

Report Date: 10/15/15
Collection Date: 09/15/15 15:50
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	180	mg/L		4		A2320 B	09/21/15 20:22 / SRW
Bicarbonate as HCO3	220	mg/L		4		A2320 B	09/21/15 20:22 / SRW
Chloride	24	mg/L		1		E300.0	09/21/15 21:37 / SRW
Sulfate	155	mg/L		1		E300.0	09/21/15 21:37 / SRW
Hardness as CaCO3	276	mg/L		1		A2340 B	09/22/15 14:26 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 16:41 / dck
Antimony	0.0006	mg/L		0.0005		E200.8	09/29/15 18:15 / dck
Arsenic	0.002	mg/L		0.001		E200.8	09/28/15 16:41 / dck
Barium	0.057	mg/L		0.003		E200.8	09/28/15 16:41 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 16:41 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 14:26 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 16:41 / dck
Calcium	85	mg/L		1		E200.7	09/22/15 14:26 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 16:41 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 16:41 / dck
Copper	ND	mg/L		0.001		E200.8	09/28/15 16:41 / dck
Iron	0.06	mg/L		0.02		E200.8	09/28/15 16:41 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 16:41 / dck
Magnesium	16	mg/L		1		E200.7	09/22/15 14:26 / sld
Manganese	0.062	mg/L		0.001		E200.8	09/28/15 16:41 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/09/15 15:39 / eli-b40
Molybdenum	0.008	mg/L		0.005		E200.8	09/28/15 16:41 / dck
Nickel	0.004	mg/L		0.002		E200.8	09/28/15 16:41 / dck
Potassium	5	mg/L		1		E200.7	09/22/15 14:26 / sld
Selenium	0.003	mg/L		0.001		E200.8	09/28/15 16:41 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 16:41 / dck
Sodium	34	mg/L		1		E200.7	09/22/15 14:26 / sld
Uranium	0.0573	mg/L		0.0002		E200.8	09/28/15 16:41 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 16:41 / dck
Zinc	0.024	mg/L		0.008		E200.8	09/28/15 16:41 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-017
Client Sample ID: 1GW-1056

Report Date: 10/15/15
Collection Date: 09/15/15 16:00
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	120	mg/L		4		A2320 B	09/21/15 20:37 / SRW
Bicarbonate as HCO3	150	mg/L		4		A2320 B	09/21/15 20:37 / SRW
Chloride	18	mg/L		1		E300.0	09/21/15 21:48 / SRW
Sulfate	184	mg/L		1		E300.0	09/21/15 21:48 / SRW
Hardness as CaCO3	257	mg/L		1		A2340 B	09/22/15 14:30 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 16:44 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 16:44 / dck
Arsenic	0.008	mg/L		0.001		E200.8	09/28/15 16:44 / dck
Barium	0.032	mg/L		0.003		E200.8	09/28/15 16:44 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 16:44 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 14:30 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 16:44 / dck
Calcium	77	mg/L		1		E200.7	09/22/15 14:30 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 16:44 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 16:44 / dck
Copper	ND	mg/L		0.001		E200.8	09/28/15 16:44 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 16:44 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 16:44 / dck
Magnesium	16	mg/L		1		E200.7	09/22/15 14:30 / sld
Manganese	ND	mg/L		0.001		E200.8	09/28/15 16:44 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/09/15 15:42 / eli-b40
Molybdenum	0.008	mg/L		0.005		E200.8	09/28/15 16:44 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 16:44 / dck
Potassium	4	mg/L		1		E200.7	09/22/15 14:30 / sld
Selenium	0.005	mg/L		0.001		E200.8	09/28/15 16:44 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 16:44 / dck
Sodium	29	mg/L		1		E200.7	09/22/15 14:30 / sld
Uranium	0.0353	mg/L		0.0002		E200.8	09/28/15 16:44 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 16:44 / dck
Zinc	0.029	mg/L		0.008		E200.8	09/28/15 16:44 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-018
Client Sample ID: GW-FR-ES

Report Date: 10/15/15
Collection Date: 09/16/15 19:35
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	160	mg/L		4		A2320 B	09/21/15 20:44 / SRW
Bicarbonate as HCO3	200	mg/L		4		A2320 B	09/21/15 20:44 / SRW
Chloride	13	mg/L		1		E300.0	09/21/15 21:59 / SRW
Sulfate	182	mg/L		1		E300.0	09/21/15 21:59 / SRW
Hardness as CaCO3	303	mg/L		1		A2340 B	09/22/15 12:09 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 16:47 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 16:47 / dck
Arsenic	0.002	mg/L		0.001		E200.8	09/28/15 16:47 / dck
Barium	0.065	mg/L		0.003		E200.8	09/28/15 16:47 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 16:47 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 12:09 / sld
Cadmium	0.00012	mg/L		0.00003		E200.8	09/28/15 16:47 / dck
Calcium	91	mg/L		1		E200.7	09/22/15 12:09 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 16:47 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 16:47 / dck
Copper	0.001	mg/L		0.001		E200.8	09/28/15 16:47 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 16:47 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 16:47 / dck
Magnesium	18	mg/L		1		E200.7	09/22/15 12:09 / sld
Manganese	0.303	mg/L		0.001		E200.8	09/28/15 16:47 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/12/15 15:32 / eli-b40
Molybdenum	0.007	mg/L		0.005		E200.8	09/28/15 16:47 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 16:47 / dck
Potassium	3	mg/L		1		E200.7	09/22/15 12:09 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 16:47 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 16:47 / dck
Sodium	16	mg/L		1		E200.7	09/22/15 12:09 / sld
Uranium	0.0186	mg/L		0.0002		E200.8	09/28/15 16:47 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 16:47 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 16:47 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-019
Client Sample ID: GW-ST-BG

Report Date: 10/15/15
Collection Date: 09/16/15 18:15
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	18	mg/L		4		A2320 B	09/21/15 20:56 / SRW
Bicarbonate as HCO3	21	mg/L		4		A2320 B	09/21/15 20:56 / SRW
Chloride	46	mg/L		1		E300.0	09/21/15 22:11 / SRW
Sulfate	222	mg/L		1		E300.0	09/21/15 22:11 / SRW
Hardness as CaCO3	228	mg/L		1		A2340 B	09/22/15 12:13 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	10/02/15 12:38 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 16:50 / dck
Arsenic	0.002	mg/L		0.001		E200.8	09/28/15 16:50 / dck
Barium	0.022	mg/L		0.003		E200.8	09/28/15 16:50 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 16:50 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 12:13 / sld
Cadmium	0.00126	mg/L		0.00003		E200.8	09/28/15 16:50 / dck
Calcium	66	mg/L		1		E200.7	09/22/15 12:13 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 16:50 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 16:50 / dck
Copper	0.002	mg/L		0.001		E200.8	09/28/15 16:50 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 16:50 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 16:50 / dck
Magnesium	15	mg/L		1		E200.7	09/22/15 12:13 / sld
Manganese	0.596	mg/L		0.001		E200.8	09/28/15 16:50 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/13/15 16:11 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 16:50 / dck
Nickel	0.023	mg/L		0.002		E200.8	09/28/15 16:50 / dck
Potassium	4	mg/L		1		E200.7	09/22/15 12:13 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 16:50 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 16:50 / dck
Sodium	24	mg/L		1		E200.7	09/22/15 12:13 / sld
Uranium	ND	mg/L		0.0002		E200.8	09/28/15 16:50 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 16:50 / dck
Zinc	0.750	mg/L		0.008		E200.8	09/28/15 16:50 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-020
Client Sample ID: GW-ST-ES

Report Date: 10/15/15
Collection Date: 09/16/15 18:50
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	4	mg/L		4		A2320 B	09/21/15 21:03 / SRW
Bicarbonate as HCO3	5	mg/L		4		A2320 B	09/21/15 21:03 / SRW
Chloride	30	mg/L		1		E300.0	09/21/15 22:22 / SRW
Sulfate	87	mg/L		1		E300.0	09/21/15 22:22 / SRW
Hardness as CaCO3	89	mg/L		1		A2340 B	09/22/15 14:34 / abb
METALS, DISSOLVED							
Aluminum	0.396	mg/L		0.009		E200.8	09/28/15 16:53 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 16:53 / dck
Arsenic	ND	mg/L		0.001		E200.8	09/28/15 16:53 / dck
Barium	0.022	mg/L		0.003		E200.8	09/28/15 16:53 / dck
Beryllium	0.0009	mg/L		0.0008		E200.8	09/28/15 16:53 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 14:34 / sld
Cadmium	0.0218	mg/L		0.00003		E200.8	09/28/15 16:53 / dck
Calcium	29	mg/L		1		E200.7	09/22/15 14:34 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 16:53 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 16:53 / dck
Copper	1.20	mg/L	D	0.005		E200.7	09/22/15 14:34 / sld
Iron	ND	mg/L		0.02		E200.8	09/28/15 16:53 / dck
Lead	0.0012	mg/L		0.0003		E200.8	09/28/15 16:53 / dck
Magnesium	4	mg/L		1		E200.7	09/22/15 14:34 / sld
Manganese	1.33	mg/L		0.001		E200.7	09/22/15 14:34 / sld
Mercury	ND	mg/L		5E-06		E245.1	10/09/15 15:44 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 16:53 / dck
Nickel	0.009	mg/L		0.002		E200.8	09/28/15 16:53 / dck
Potassium	5	mg/L		1		E200.7	09/22/15 14:34 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 16:53 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 16:53 / dck
Sodium	20	mg/L		1		E200.7	09/22/15 14:34 / sld
Uranium	0.0020	mg/L		0.0002		E200.8	09/28/15 16:53 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 16:53 / dck
Zinc	3.23	mg/L		0.008		E200.7	09/22/15 14:34 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-021
Client Sample ID: GW-CR-WS

Report Date: 10/15/15
Collection Date: 09/16/15 17:00
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	100	mg/L		4		A2320 B	09/21/15 21:09 / SRW
Bicarbonate as HCO3	120	mg/L		4		A2320 B	09/21/15 21:09 / SRW
Chloride	34	mg/L		1		E300.0	09/21/15 22:33 / SRW
Sulfate	65	mg/L		1		E300.0	09/21/15 22:33 / SRW
Hardness as CaCO3	142	mg/L		1		A2340 B	09/22/15 14:38 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 16:57 / dck
Antimony	0.0008	mg/L		0.0005		E200.8	09/29/15 18:22 / dck
Arsenic	0.008	mg/L		0.001		E200.8	09/28/15 16:57 / dck
Barium	0.037	mg/L		0.003		E200.8	09/28/15 16:57 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 16:57 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 14:38 / sld
Cadmium	0.0196	mg/L		0.00003		E200.8	09/28/15 16:57 / dck
Calcium	45	mg/L		1		E200.7	09/22/15 14:38 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 16:57 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 16:57 / dck
Copper	0.019	mg/L		0.001		E200.8	09/28/15 16:57 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 16:57 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 16:57 / dck
Magnesium	7	mg/L		1		E200.7	09/22/15 14:38 / sld
Manganese	2.40	mg/L		0.001		E200.7	09/22/15 14:38 / sld
Mercury	ND	mg/L		5E-06		E245.1	10/13/15 16:19 / eli-b40
Molybdenum	0.012	mg/L		0.005		E200.8	09/28/15 16:57 / dck
Nickel	0.002	mg/L		0.002		E200.8	09/28/15 16:57 / dck
Potassium	5	mg/L		1		E200.7	09/22/15 14:38 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 16:57 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 16:57 / dck
Sodium	35	mg/L		1		E200.7	09/22/15 14:38 / sld
Uranium	0.0032	mg/L		0.0002		E200.8	09/28/15 16:57 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 16:57 / dck
Zinc	0.214	mg/L		0.008		E200.8	09/28/15 16:57 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-022
Client Sample ID: GW-CR-BG

Report Date: 10/15/15
Collection Date: 09/16/15 16:15
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	130	mg/L		4		A2320 B	09/21/15 21:17 / SRW
Bicarbonate as HCO3	160	mg/L		4		A2320 B	09/21/15 21:17 / SRW
Chloride	21	mg/L		1		E300.0	09/21/15 22:44 / SRW
Sulfate	114	mg/L		1		E300.0	09/21/15 22:44 / SRW
Hardness as CaCO3	42	mg/L		1		A2340 B	09/22/15 12:17 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	10/02/15 12:41 / dck
Antimony	0.0028	mg/L		0.0005		E200.8	09/28/15 17:00 / dck
Arsenic	0.037	mg/L		0.001		E200.8	09/28/15 17:00 / dck
Barium	0.014	mg/L		0.003		E200.8	09/28/15 17:00 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 17:00 / dck
Boron	0.2	mg/L		0.1		E200.7	09/22/15 12:17 / sld
Cadmium	0.00003	mg/L		0.00003		E200.8	09/28/15 17:00 / dck
Calcium	14	mg/L		1		E200.7	09/22/15 12:17 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 17:00 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 17:00 / dck
Copper	0.003	mg/L		0.001		E200.8	09/28/15 17:00 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 17:00 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 17:00 / dck
Magnesium	2	mg/L		1		E200.7	09/22/15 12:17 / sld
Manganese	0.102	mg/L		0.001		E200.8	09/28/15 17:00 / dck
Mercury	6.3E-06	mg/L		5E-06		E245.1	10/13/15 16:22 / eli-b40
Molybdenum	0.026	mg/L		0.005		E200.8	09/28/15 17:00 / dck
Nickel	0.002	mg/L		0.002		E200.8	09/28/15 17:00 / dck
Potassium	4	mg/L		1		E200.7	09/22/15 12:17 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 17:00 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 17:00 / dck
Sodium	124	mg/L		1		E200.7	09/22/15 12:17 / sld
Uranium	0.0017	mg/L		0.0002		E200.8	09/29/15 18:25 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 17:00 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 17:00 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-023
Client Sample ID: GW-FM-WS

Report Date: 10/15/15
Collection Date: 09/16/15 15:15
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	130	mg/L		4		A2320 B	09/21/15 21:27 / SRW
Bicarbonate as HCO3	150	mg/L		4		A2320 B	09/21/15 21:27 / SRW
Chloride	29	mg/L		1		E300.0	09/21/15 22:55 / SRW
Sulfate	61	mg/L		1		E300.0	09/21/15 22:55 / SRW
Hardness as CaCO3	172	mg/L		1		A2340 B	09/23/15 19:44 / abb
METALS, DISSOLVED							
Aluminum	0.041	mg/L		0.009		E200.8	09/28/15 17:16 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 17:16 / dck
Arsenic	0.002	mg/L		0.001		E200.8	09/28/15 17:16 / dck
Barium	0.122	mg/L		0.003		E200.8	09/28/15 17:16 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 17:16 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 19:44 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 17:16 / dck
Calcium	51	mg/L		1		E200.7	09/23/15 19:44 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 17:16 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 17:16 / dck
Copper	0.002	mg/L		0.001		E200.8	09/28/15 17:16 / dck
Iron	0.07	mg/L		0.02		E200.8	09/28/15 17:16 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 17:16 / dck
Magnesium	10	mg/L		1		E200.7	09/23/15 19:44 / sld
Manganese	2.07	mg/L		0.001		E200.7	09/23/15 19:44 / sld
Mercury	ND	mg/L		5E-06		E245.1	10/13/15 16:24 / eli-b40
Molybdenum	0.007	mg/L		0.005		E200.8	09/28/15 17:16 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 17:16 / dck
Potassium	4	mg/L		1		E200.7	09/23/15 19:44 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 17:16 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 17:16 / dck
Sodium	24	mg/L		1		E200.7	09/23/15 19:44 / sld
Uranium	0.0047	mg/L		0.0002		E200.8	09/28/15 17:16 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 17:16 / dck
Zinc	0.037	mg/L		0.008		E200.8	09/28/15 17:16 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-024
Client Sample ID: GW-MC-SS

Report Date: 10/15/15
Collection Date: 09/16/15 14:20
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	92	mg/L		4		A2320 B	09/21/15 21:36 / SRW
Bicarbonate as HCO3	110	mg/L		4		A2320 B	09/21/15 21:36 / SRW
Chloride	46	mg/L		1		E300.0	09/21/15 23:06 / SRW
Sulfate	91	mg/L		1		E300.0	09/21/15 23:06 / SRW
Hardness as CaCO3	156	mg/L		1		A2340 B	09/23/15 20:22 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 17:19 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 17:19 / dck
Arsenic	0.001	mg/L		0.001		E200.8	09/28/15 17:19 / dck
Barium	0.040	mg/L		0.003		E200.8	09/28/15 17:19 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 17:19 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 20:22 / sld
Cadmium	0.00796	mg/L		0.00003		E200.8	09/28/15 17:19 / dck
Calcium	43	mg/L		1		E200.7	09/23/15 20:22 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 17:19 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 17:19 / dck
Copper	0.028	mg/L		0.001		E200.8	09/28/15 17:19 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 17:19 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 17:19 / dck
Magnesium	12	mg/L		1		E200.7	09/23/15 20:22 / sld
Manganese	5.10	mg/L		0.001		E200.7	09/23/15 20:22 / sld
Mercury	0.0000157	mg/L		5E-06		E245.1	10/13/15 16:27 / eli-b40
Molybdenum	0.039	mg/L		0.005		E200.8	09/28/15 17:19 / dck
Nickel	0.012	mg/L		0.002		E200.8	09/28/15 17:19 / dck
Potassium	6	mg/L		1		E200.7	09/23/15 20:22 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 17:19 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 17:19 / dck
Sodium	33	mg/L		1		E200.7	09/23/15 20:22 / sld
Uranium	0.0011	mg/L		0.0002		E200.8	09/28/15 17:19 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 17:19 / dck
Zinc	3.62	mg/L		0.008		E200.7	09/23/15 20:22 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-025
Client Sample ID: GW-MC-BG

Report Date: 10/15/15
Collection Date: 09/16/15 13:40
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	270	mg/L		4		A2320 B	09/21/15 21:44 / SRW
Bicarbonate as HCO3	330	mg/L		4		A2320 B	09/21/15 21:44 / SRW
Chloride	77	mg/L		1		E300.0	09/21/15 23:17 / SRW
Sulfate	258	mg/L		1		E300.0	09/21/15 23:17 / SRW
Hardness as CaCO3	126	mg/L		1		A2340 B	09/23/15 18:03 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 17:26 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 17:26 / dck
Arsenic	0.034	mg/L		0.001		E200.8	09/28/15 17:26 / dck
Barium	0.034	mg/L		0.003		E200.8	09/28/15 17:26 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 17:26 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 18:03 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 17:26 / dck
Calcium	37	mg/L		1		E200.7	09/23/15 18:03 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 17:26 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 17:26 / dck
Copper	ND	mg/L		0.001		E200.8	09/28/15 17:26 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 17:26 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 17:26 / dck
Magnesium	8	mg/L		1		E200.7	09/23/15 18:03 / sld
Manganese	0.003	mg/L		0.001		E200.8	09/28/15 17:26 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/13/15 16:35 / eli-b40
Molybdenum	0.048	mg/L		0.005		E200.8	09/28/15 17:26 / dck
Nickel	0.005	mg/L		0.002		E200.8	09/28/15 17:26 / dck
Potassium	5	mg/L		1		E200.7	09/23/15 18:03 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 17:26 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 17:26 / dck
Sodium	230	mg/L		1		E200.7	09/23/15 18:03 / sld
Uranium	0.0029	mg/L		0.0002		E200.8	09/28/15 17:26 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 17:26 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 17:26 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-026
Client Sample ID: P-114

Report Date: 10/15/15
Collection Date: 09/16/15 12:30
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	200	mg/L		4		A2320 B	09/21/15 21:51 / SRW
Bicarbonate as HCO3	240	mg/L		4		A2320 B	09/21/15 21:51 / SRW
Chloride	33	mg/L		1		E300.0	09/22/15 00:13 / SRW
Sulfate	122	mg/L		1		E300.0	09/22/15 00:13 / SRW
Hardness as CaCO3	166	mg/L		1		A2340 B	09/23/15 18:07 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 17:38 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 17:38 / dck
Arsenic	0.003	mg/L		0.001		E200.8	09/28/15 17:38 / dck
Barium	0.025	mg/L		0.003		E200.8	09/28/15 17:38 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 17:38 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 18:07 / sld
Cadmium	0.00004	mg/L		0.00003		E200.8	09/29/15 18:41 / dck
Calcium	57	mg/L		1		E200.7	09/23/15 18:07 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 17:38 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 17:38 / dck
Copper	0.003	mg/L		0.001		E200.8	09/28/15 17:38 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 17:38 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 17:38 / dck
Magnesium	6	mg/L		1		E200.7	09/23/15 18:07 / sld
Manganese	ND	mg/L		0.001		E200.8	09/29/15 18:41 / dck
Mercury	0.0000148	mg/L		5E-06		E245.1	10/13/15 16:37 / eli-b40
Molybdenum	0.007	mg/L		0.005		E200.8	09/28/15 17:38 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 17:38 / dck
Potassium	5	mg/L		1		E200.7	09/23/15 18:07 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 17:38 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 17:38 / dck
Sodium	98	mg/L		1		E200.7	09/23/15 18:07 / sld
Uranium	0.0029	mg/L		0.0002		E200.8	09/28/15 17:38 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 17:38 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 17:38 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-027
Client Sample ID: GW-1004A

Report Date: 10/15/15
Collection Date: 09/16/15 11:20
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	ND	mg/L		4		A2320 B	09/21/15 21:59 / SRW
Bicarbonate as HCO3	ND	mg/L		4		A2320 B	09/21/15 21:59 / SRW
Chloride	51	mg/L		1		E300.0	09/22/15 00:24 / SRW
Sulfate	671	mg/L		1		E300.0	09/22/15 00:24 / SRW
Hardness as CaCO3	382	mg/L		1		A2340 B	09/23/15 18:11 / abb
METALS, DISSOLVED							
Aluminum	0.364	mg/L		0.009		E200.8	09/28/15 17:48 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 17:48 / dck
Arsenic	ND	mg/L		0.001		E200.8	09/28/15 17:48 / dck
Barium	0.013	mg/L		0.003		E200.8	09/28/15 17:48 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 17:48 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 18:11 / sld
Cadmium	0.00228	mg/L		0.00003		E200.8	09/28/15 17:48 / dck
Calcium	83	mg/L		1		E200.7	09/23/15 18:11 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 17:48 / dck
Cobalt	0.05	mg/L		0.01		E200.8	09/28/15 17:48 / dck
Copper	0.045	mg/L		0.001		E200.8	09/28/15 17:48 / dck
Iron	60.2	mg/L		0.02		E200.7	09/23/15 18:11 / sld
Lead	0.0108	mg/L		0.0003		E200.8	09/28/15 17:48 / dck
Magnesium	43	mg/L		1		E200.7	09/23/15 18:11 / sld
Manganese	27.1	mg/L		0.001		E200.7	09/23/15 18:11 / sld
Mercury	ND	mg/L		5E-06		E245.1	10/13/15 16:40 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 17:48 / dck
Nickel	0.020	mg/L		0.002		E200.8	09/28/15 17:48 / dck
Potassium	7	mg/L		1		E200.7	09/23/15 18:11 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 17:48 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 17:48 / dck
Sodium	52	mg/L		1		E200.7	09/23/15 18:11 / sld
Uranium	0.0003	mg/L		0.0002		E200.8	09/28/15 17:48 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 17:48 / dck
Zinc	8.17	mg/L		0.008		E200.7	09/23/15 18:11 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-028
Client Sample ID: GW-1003R

Report Date: 10/15/15
Collection Date: 09/16/15 10:50
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	120	mg/L		4		A2320 B	09/21/15 22:02 / SRW
Bicarbonate as HCO3	150	mg/L		4		A2320 B	09/21/15 22:02 / SRW
Chloride	11	mg/L		1		E300.0	09/22/15 00:35 / SRW
Sulfate	40	mg/L		1		E300.0	09/22/15 00:35 / SRW
Hardness as CaCO3	114	mg/L		1		A2340 B	09/23/15 18:15 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 17:51 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 17:51 / dck
Arsenic	0.011	mg/L		0.001		E200.8	09/28/15 17:51 / dck
Barium	0.044	mg/L		0.003		E200.8	09/28/15 17:51 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 17:51 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 18:15 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 17:51 / dck
Calcium	35	mg/L		1		E200.7	09/23/15 18:15 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 17:51 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 17:51 / dck
Copper	0.001	mg/L		0.001		E200.8	09/28/15 17:51 / dck
Iron	ND	mg/L		0.02		E200.8	09/29/15 18:54 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 17:51 / dck
Magnesium	7	mg/L		1		E200.7	09/23/15 18:15 / sld
Manganese	0.008	mg/L		0.001		E200.8	09/29/15 18:54 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/13/15 16:42 / eli-b40
Molybdenum	0.011	mg/L		0.005		E200.8	09/28/15 17:51 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 17:51 / dck
Potassium	6	mg/L		1		E200.7	09/23/15 18:15 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 17:51 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 17:51 / dck
Sodium	32	mg/L		1		E200.7	09/23/15 18:15 / sld
Uranium	0.0029	mg/L		0.0002		E200.8	09/28/15 17:51 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 17:51 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 17:51 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-029
Client Sample ID: GW-RK-BG

Report Date: 10/15/15
Collection Date: 09/16/15 09:00
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	140	mg/L		4		A2320 B	09/21/15 22:10 / SRW
Bicarbonate as HCO3	170	mg/L		4		A2320 B	09/21/15 22:10 / SRW
Chloride	33	mg/L		1		E300.0	09/22/15 00:46 / SRW
Sulfate	94	mg/L		1		E300.0	09/22/15 00:46 / SRW
Hardness as CaCO3	203	mg/L		1		A2340 B	09/23/15 18:26 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 17:54 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 17:54 / dck
Arsenic	0.006	mg/L		0.001		E200.8	09/28/15 17:54 / dck
Barium	0.072	mg/L		0.003		E200.8	09/28/15 17:54 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 17:54 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 18:26 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 17:54 / dck
Calcium	59	mg/L		1		E200.7	09/23/15 18:26 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 17:54 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 17:54 / dck
Copper	ND	mg/L		0.001		E200.8	09/28/15 17:54 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 17:54 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 17:54 / dck
Magnesium	14	mg/L		1		E200.7	09/23/15 18:26 / sld
Manganese	ND	mg/L		0.001		E200.8	09/29/15 18:57 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/13/15 16:45 / eli-b40
Molybdenum	0.011	mg/L		0.005		E200.8	09/28/15 17:54 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 17:54 / dck
Potassium	5	mg/L		1		E200.7	09/23/15 18:26 / sld
Selenium	0.001	mg/L		0.001		E200.8	09/28/15 17:54 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 17:54 / dck
Sodium	38	mg/L		1		E200.7	09/23/15 18:26 / sld
Uranium	0.0063	mg/L		0.0002		E200.8	09/28/15 17:54 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 17:54 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 17:54 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-030
Client Sample ID: MW-10

Report Date: 10/15/15
Collection Date: 09/17/15 13:00
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	13	mg/L		4		A2320 B	09/21/15 22:18 / SRW
Bicarbonate as HCO3	16	mg/L		4		A2320 B	09/21/15 22:18 / SRW
Chloride	39	mg/L		1		E300.0	09/22/15 00:57 / SRW
Sulfate	127	mg/L		1		E300.0	09/22/15 00:57 / SRW
Hardness as CaCO3	108	mg/L		1		A2340 B	09/23/15 18:30 / abb
METALS, DISSOLVED							
Aluminum	0.240	mg/L		0.009		E200.8	09/28/15 17:57 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 17:57 / dck
Arsenic	0.004	mg/L		0.001		E200.8	09/28/15 17:57 / dck
Barium	0.020	mg/L		0.003		E200.8	09/28/15 17:57 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 17:57 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 18:30 / sld
Cadmium	0.00322	mg/L		0.00003		E200.8	09/28/15 17:57 / dck
Calcium	30	mg/L		1		E200.7	09/23/15 18:30 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 17:57 / dck
Cobalt	0.02	mg/L		0.01		E200.8	09/28/15 17:57 / dck
Copper	0.042	mg/L		0.001		E200.8	09/28/15 17:57 / dck
Iron	7.79	mg/L		0.02		E200.7	09/23/15 18:30 / sld
Lead	ND	mg/L		0.0003		E200.8	09/28/15 17:57 / dck
Magnesium	8	mg/L		1		E200.7	09/23/15 18:30 / sld
Manganese	4.99	mg/L		0.001		E200.7	09/23/15 18:30 / sld
Mercury	ND	mg/L		5E-06		E245.1	10/13/15 16:47 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 17:57 / dck
Nickel	0.007	mg/L		0.002		E200.8	09/28/15 17:57 / dck
Potassium	5	mg/L		1		E200.7	09/23/15 18:30 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 17:57 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 17:57 / dck
Sodium	32	mg/L		1		E200.7	09/23/15 18:30 / sld
Uranium	0.0004	mg/L		0.0002		E200.8	09/28/15 17:57 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 17:57 / dck
Zinc	3.57	mg/L		0.008		E200.7	09/23/15 18:30 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-031
Client Sample ID: GW-FM-BG

Report Date: 10/15/15
Collection Date: 09/17/15 09:10
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	36	mg/L		4		A2320 B	09/21/15 22:25 / SRW
Bicarbonate as HCO3	44	mg/L		4		A2320 B	09/21/15 22:25 / SRW
Chloride	21	mg/L		1		E300.0	09/22/15 01:08 / SRW
Sulfate	104	mg/L		1		E300.0	09/22/15 01:08 / SRW
Hardness as CaCO3	117	mg/L		1		A2340 B	09/23/15 18:33 / abb
METALS, DISSOLVED							
Aluminum	0.014	mg/L		0.009		E200.8	09/28/15 18:10 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 18:10 / dck
Arsenic	0.002	mg/L		0.001		E200.8	09/28/15 18:10 / dck
Barium	0.038	mg/L		0.003		E200.8	09/28/15 18:10 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 18:10 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 18:33 / sld
Cadmium	0.00041	mg/L		0.00003		E200.8	09/28/15 18:10 / dck
Calcium	35	mg/L		1		E200.7	09/23/15 18:33 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 18:10 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 18:10 / dck
Copper	ND	mg/L		0.001		E200.8	09/28/15 18:10 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 18:10 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 18:10 / dck
Magnesium	7	mg/L		1		E200.7	09/23/15 18:33 / sld
Manganese	0.335	mg/L		0.001		E200.8	09/28/15 18:10 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/13/15 16:50 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 18:10 / dck
Nickel	0.005	mg/L		0.002		E200.8	09/28/15 18:10 / dck
Potassium	5	mg/L		1		E200.7	09/23/15 18:33 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 18:10 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 18:10 / dck
Sodium	24	mg/L		1		E200.7	09/23/15 18:33 / sld
Uranium	0.0002	mg/L		0.0002		E200.8	09/28/15 18:10 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 18:10 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 18:10 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-032
Client Sample ID: GW-FM-BG Field Dup

Report Date: 10/15/15
Collection Date: 09/17/15 09:15
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	36	mg/L		4		A2320 B	09/21/15 22:32 / SRW
Bicarbonate as HCO3	43	mg/L		4		A2320 B	09/21/15 22:32 / SRW
Chloride	21	mg/L		1		E300.0	09/22/15 01:19 / SRW
Sulfate	103	mg/L		1		E300.0	09/22/15 01:19 / SRW
Hardness as CaCO3	117	mg/L		1		A2340 B	09/23/15 18:37 / abb
METALS, DISSOLVED							
Aluminum	0.014	mg/L		0.009		E200.8	09/28/15 18:13 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 18:13 / dck
Arsenic	0.002	mg/L		0.001		E200.8	09/28/15 18:13 / dck
Barium	0.038	mg/L		0.003		E200.8	09/28/15 18:13 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 18:13 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 18:37 / sld
Cadmium	0.00041	mg/L		0.00003		E200.8	09/28/15 18:13 / dck
Calcium	35	mg/L		1		E200.7	09/23/15 18:37 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 18:13 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 18:13 / dck
Copper	ND	mg/L		0.001		E200.8	09/28/15 18:13 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 18:13 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 18:13 / dck
Magnesium	7	mg/L		1		E200.7	09/23/15 18:37 / sld
Manganese	0.333	mg/L		0.001		E200.8	09/28/15 18:13 / dck
Mercury	5.7E-06	mg/L		5E-06		E245.1	10/13/15 16:53 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 18:13 / dck
Nickel	0.005	mg/L		0.002		E200.8	09/28/15 18:13 / dck
Potassium	5	mg/L		1		E200.7	09/23/15 18:37 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 18:13 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 18:13 / dck
Sodium	24	mg/L		1		E200.7	09/23/15 18:37 / sld
Uranium	0.0002	mg/L		0.0002		E200.8	09/28/15 18:13 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 18:13 / dck
Zinc	0.009	mg/L		0.008		E200.8	09/28/15 18:13 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-033
Client Sample ID: GW-FR-BG

Report Date: 10/15/15
Collection Date: 09/16/15 19:40
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	260	mg/L		4		A2320 B	09/29/15 14:05 / SRW
Bicarbonate as HCO3	310	mg/L		4		A2320 B	09/29/15 14:05 / SRW
Chloride	1	mg/L		1		E300.0	09/22/15 01:31 / SRW
Sulfate	14	mg/L		1		E300.0	09/22/15 01:31 / SRW
Hardness as CaCO3	118	mg/L		1		A2340 B	09/30/15 10:14 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 18:26 / dck
Antimony	0.0017	mg/L		0.0005		E200.8	09/28/15 18:26 / dck
Arsenic	0.008	mg/L		0.001		E200.8	09/28/15 18:26 / dck
Barium	0.032	mg/L		0.003		E200.8	09/28/15 18:26 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 18:26 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 18:52 / sld
Cadmium	0.00004	mg/L		0.00003		E200.8	09/29/15 19:00 / dck
Calcium	36	mg/L		1		E200.7	09/23/15 18:52 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 18:26 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 18:26 / dck
Copper	0.002	mg/L		0.001		E200.8	09/28/15 18:26 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 18:26 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 18:26 / dck
Magnesium	7	mg/L		1		E200.7	09/23/15 18:52 / sld
Manganese	0.030	mg/L		0.001		E200.8	09/28/15 18:26 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/13/15 16:55 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 18:26 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 18:26 / dck
Potassium	1	mg/L		1		E200.7	09/23/15 18:52 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 18:26 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 18:26 / dck
Sodium	8	mg/L		1		E200.7	09/23/15 18:52 / sld
Uranium	0.0049	mg/L		0.0002		E200.8	09/28/15 18:26 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 18:26 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 18:26 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-034
Client Sample ID: GW-FR-WS

Report Date: 10/15/15
Collection Date: 09/16/15 19:50
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	220	mg/L		4		A2320 B	09/21/15 23:06 / SRW
Bicarbonate as HCO3	270	mg/L		4		A2320 B	09/21/15 23:06 / SRW
Chloride	ND	mg/L		1		E300.0	09/22/15 01:42 / SRW
Sulfate	19	mg/L		1		E300.0	09/22/15 01:42 / SRW
Hardness as CaCO3	133	mg/L		1		A2340 B	09/29/15 17:08 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 18:29 / dck
Antimony	0.0027	mg/L		0.0005		E200.8	09/28/15 18:29 / dck
Arsenic	0.006	mg/L		0.001		E200.8	09/28/15 18:29 / dck
Barium	0.059	mg/L		0.003		E200.8	09/28/15 18:29 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 18:29 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 20:25 / sld
Cadmium	0.00005	mg/L		0.00003		E200.8	09/28/15 18:29 / dck
Calcium	41	mg/L		1		E200.7	09/23/15 20:25 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 18:29 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 18:29 / dck
Copper	0.002	mg/L		0.001		E200.8	09/28/15 18:29 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 18:29 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 18:29 / dck
Magnesium	8	mg/L		1		E200.7	09/23/15 20:25 / sld
Manganese	0.072	mg/L		0.001		E200.8	09/28/15 18:29 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/13/15 16:58 / eli-b40
Molybdenum	0.007	mg/L		0.005		E200.8	09/28/15 18:29 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 18:29 / dck
Potassium	2	mg/L		1		E200.7	09/23/15 20:25 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 18:29 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 18:29 / dck
Sodium	8	mg/L		1		E200.7	09/23/15 20:25 / sld
Uranium	0.0238	mg/L		0.0002		E200.8	09/28/15 18:29 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 18:29 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 18:29 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-035
Client Sample ID: GW-ST-WS

Report Date: 10/15/15
Collection Date: 09/16/15 18:30
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	24	mg/L		4		A2320 B	09/21/15 23:31 / SRW
Bicarbonate as HCO3	29	mg/L		4		A2320 B	09/21/15 23:31 / SRW
Chloride	35	mg/L		1		E300.0	09/22/15 01:53 / SRW
Sulfate	90	mg/L		1		E300.0	09/22/15 01:53 / SRW
Hardness as CaCO3	106	mg/L		1		A2340 B	09/23/15 18:56 / abb
METALS, DISSOLVED							
Aluminum	0.110	mg/L		0.009		E200.8	09/28/15 18:33 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 18:33 / dck
Arsenic	0.002	mg/L		0.001		E200.8	09/28/15 18:33 / dck
Barium	0.025	mg/L		0.003		E200.8	09/28/15 18:33 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 18:33 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 18:56 / sld
Cadmium	0.0241	mg/L		0.00003		E200.8	09/28/15 18:33 / dck
Calcium	32	mg/L		1		E200.7	09/23/15 18:56 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 18:33 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 18:33 / dck
Copper	0.133	mg/L		0.001		E200.8	09/28/15 18:33 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 18:33 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 18:33 / dck
Magnesium	6	mg/L		1		E200.7	09/23/15 18:56 / sld
Manganese	2.15	mg/L		0.001		E200.7	09/23/15 18:56 / sld
Mercury	ND	mg/L		5E-06		E245.1	10/13/15 17:26 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 18:33 / dck
Nickel	0.013	mg/L		0.002		E200.8	09/28/15 18:33 / dck
Potassium	5	mg/L		1		E200.7	09/23/15 18:56 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 18:33 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 18:33 / dck
Sodium	21	mg/L		1		E200.7	09/23/15 18:56 / sld
Uranium	0.0007	mg/L		0.0002		E200.8	09/28/15 18:33 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 18:33 / dck
Zinc	3.85	mg/L		0.008		E200.7	09/23/15 18:56 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-036
Client Sample ID: MW-01

Report Date: 10/15/15
Collection Date: 09/16/15 09:55
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	180	mg/L		4		A2320 B	09/22/15 10:18 / SRW
Bicarbonate as HCO3	220	mg/L		4		A2320 B	09/22/15 10:18 / SRW
Chloride	20	mg/L		1		E300.0	09/22/15 21:11 / SRW
Sulfate	187	mg/L		1		E300.0	09/22/15 21:11 / SRW
Hardness as CaCO3	328	mg/L		1		A2340 B	09/23/15 18:59 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 18:36 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 18:36 / dck
Arsenic	0.008	mg/L		0.001		E200.8	09/28/15 18:36 / dck
Barium	0.020	mg/L		0.003		E200.8	09/28/15 18:36 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 18:36 / dck
Boron	0.1	mg/L		0.1		E200.7	09/23/15 18:59 / sld
Cadmium	0.00068	mg/L		0.00003		E200.8	09/28/15 18:36 / dck
Calcium	102	mg/L		1		E200.7	09/23/15 18:59 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 18:36 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 18:36 / dck
Copper	0.050	mg/L		0.001		E200.8	09/28/15 18:36 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 18:36 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 18:36 / dck
Magnesium	18	mg/L		1		E200.7	09/23/15 18:59 / sld
Manganese	0.342	mg/L		0.001		E200.8	09/28/15 18:36 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/13/15 17:28 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 18:36 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 18:36 / dck
Potassium	8	mg/L		1		E200.7	09/23/15 18:59 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 18:36 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 18:36 / dck
Sodium	31	mg/L		1		E200.7	09/23/15 18:59 / sld
Uranium	0.0061	mg/L		0.0002		E200.8	09/28/15 18:36 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 18:36 / dck
Zinc	0.087	mg/L		0.008		E200.8	09/28/15 18:36 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-037
Client Sample ID: P-58A

Report Date: 10/15/15
Collection Date: 09/17/15 11:50
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	29	mg/L		4		A2320 B	09/22/15 10:27 / SRW
Bicarbonate as HCO3	35	mg/L		4		A2320 B	09/22/15 10:27 / SRW
Chloride	52	mg/L		1		E300.0	09/22/15 21:22 / SRW
Sulfate	217	mg/L		1		E300.0	09/22/15 21:22 / SRW
Hardness as CaCO3	226	mg/L		1		A2340 B	09/23/15 19:11 / abb
METALS, DISSOLVED							
Aluminum	0.501	mg/L		0.009		E200.8	09/29/15 19:04 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 18:39 / dck
Arsenic	ND	mg/L		0.001		E200.8	09/28/15 18:39 / dck
Barium	0.036	mg/L		0.003		E200.8	09/28/15 18:39 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 18:39 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 19:11 / sld
Cadmium	0.00600	mg/L		0.00003		E200.8	09/28/15 18:39 / dck
Calcium	68	mg/L		1		E200.7	09/23/15 19:11 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 18:39 / dck
Cobalt	0.02	mg/L		0.01		E200.8	09/28/15 18:39 / dck
Copper	0.203	mg/L		0.001		E200.8	09/28/15 18:39 / dck
Iron	8.78	mg/L		0.02		E200.7	09/23/15 19:11 / sld
Lead	ND	mg/L		0.0003		E200.8	09/28/15 18:39 / dck
Magnesium	14	mg/L		1		E200.7	09/23/15 19:11 / sld
Manganese	9.25	mg/L		0.001		E200.7	09/23/15 19:11 / sld
Mercury	ND	mg/L		5E-06		E245.1	10/13/15 17:36 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 18:39 / dck
Nickel	0.010	mg/L		0.002		E200.8	09/28/15 18:39 / dck
Potassium	8	mg/L		1		E200.7	09/23/15 19:11 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 18:39 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 18:39 / dck
Sodium	33	mg/L		1		E200.7	09/23/15 19:11 / sld
Uranium	0.0006	mg/L		0.0002		E200.8	09/28/15 18:39 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 18:39 / dck
Zinc	4.96	mg/L		0.008		E200.7	09/23/15 19:11 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-038
Client Sample ID: P-37A

Report Date: 10/15/15
Collection Date: 09/16/15 12:45
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	180	mg/L		4		A2320 B	09/22/15 10:34 / SRW
Bicarbonate as HCO3	210	mg/L		4		A2320 B	09/22/15 10:34 / SRW
Chloride	137	mg/L		1		E300.0	09/22/15 21:33 / SRW
Sulfate	308	mg/L		1		E300.0	09/22/15 21:33 / SRW
Hardness as CaCO3	491	mg/L		1		A2340 B	09/23/15 19:14 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 18:42 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 18:42 / dck
Arsenic	0.001	mg/L		0.001		E200.8	09/28/15 18:42 / dck
Barium	0.080	mg/L		0.003		E200.8	09/28/15 18:42 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 18:42 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 19:14 / sld
Cadmium	0.00344	mg/L		0.00003		E200.8	09/28/15 18:42 / dck
Calcium	155	mg/L		1		E200.7	09/23/15 19:14 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 18:42 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 18:42 / dck
Copper	0.053	mg/L		0.001		E200.8	09/28/15 18:42 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 18:42 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 18:42 / dck
Magnesium	25	mg/L		1		E200.7	09/23/15 19:14 / sld
Manganese	5.41	mg/L		0.001		E200.7	09/23/15 19:14 / sld
Mercury	0.0000217	mg/L		5E-06		E245.1	10/13/15 17:39 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 18:42 / dck
Nickel	0.004	mg/L		0.002		E200.8	09/28/15 18:42 / dck
Potassium	10	mg/L		1		E200.7	09/23/15 19:14 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 18:42 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 18:42 / dck
Sodium	88	mg/L		1		E200.7	09/23/15 19:14 / sld
Uranium	0.0052	mg/L		0.0002		E200.8	09/28/15 18:42 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 18:42 / dck
Zinc	0.158	mg/L		0.008		E200.8	09/28/15 18:42 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-039
Client Sample ID: GW-MC-NS

Report Date: 10/15/15
Collection Date: 09/17/15 10:20
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	46	mg/L		4		A2320 B	09/22/15 10:43 / SRW
Bicarbonate as HCO3	56	mg/L		4		A2320 B	09/22/15 10:43 / SRW
Chloride	44	mg/L		1		E300.0	09/22/15 22:06 / SRW
Sulfate	99	mg/L		1		E300.0	09/22/15 22:06 / SRW
Hardness as CaCO3	126	mg/L		1		A2340 B	09/23/15 19:18 / abb
METALS, DISSOLVED							
Aluminum	0.049	mg/L		0.009		E200.8	09/28/15 18:55 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 18:55 / dck
Arsenic	0.002	mg/L		0.001		E200.8	09/28/15 18:55 / dck
Barium	0.030	mg/L		0.003		E200.8	09/28/15 18:55 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 18:55 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 19:18 / sld
Cadmium	0.0279	mg/L		0.00003		E200.8	09/28/15 18:55 / dck
Calcium	35	mg/L		1		E200.7	09/23/15 19:18 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 18:55 / dck
Cobalt	0.01	mg/L		0.01		E200.8	09/28/15 18:55 / dck
Copper	0.196	mg/L		0.001		E200.8	09/28/15 18:55 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 18:55 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 18:55 / dck
Magnesium	9	mg/L		1		E200.7	09/23/15 19:18 / sld
Manganese	5.45	mg/L		0.001		E200.7	09/23/15 19:18 / sld
Mercury	7.1E-06	mg/L		5E-06		E245.1	10/14/15 16:51 / eli-b40
Molybdenum	0.006	mg/L		0.005		E200.8	09/28/15 18:55 / dck
Nickel	0.015	mg/L		0.002		E200.8	09/28/15 18:55 / dck
Potassium	6	mg/L		1		E200.7	09/23/15 19:18 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 18:55 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 18:55 / dck
Sodium	32	mg/L		1		E200.7	09/23/15 19:18 / sld
Uranium	0.0020	mg/L		0.0002		E200.8	09/28/15 18:55 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 18:55 / dck
Zinc	8.28	mg/L		0.008		E200.7	09/23/15 19:18 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-040
Client Sample ID: P-39R

Report Date: 10/15/15
Collection Date: 09/17/15 10:45
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	340	mg/L		4		A2320 B	09/22/15 10:49 / SRW
Bicarbonate as HCO3	420	mg/L		4		A2320 B	09/22/15 10:49 / SRW
Chloride	58	mg/L		1		E300.0	09/22/15 22:17 / SRW
Sulfate	333	mg/L		1		E300.0	09/22/15 22:17 / SRW
Hardness as CaCO3	665	mg/L		1		A2340 B	09/23/15 19:22 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 18:58 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 18:58 / dck
Arsenic	0.011	mg/L		0.001		E200.8	09/28/15 18:58 / dck
Barium	0.142	mg/L		0.003		E200.8	09/28/15 18:58 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 18:58 / dck
Boron	0.3	mg/L		0.1		E200.7	09/23/15 19:22 / sld
Cadmium	0.00017	mg/L		0.00003		E200.8	09/28/15 18:58 / dck
Calcium	207	mg/L		1		E200.7	09/23/15 19:22 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 18:58 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 18:58 / dck
Copper	0.037	mg/L		0.001		E200.8	09/28/15 18:58 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 18:58 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 18:58 / dck
Magnesium	36	mg/L		1		E200.7	09/23/15 19:22 / sld
Manganese	0.008	mg/L		0.001		E200.8	09/29/15 19:07 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/13/15 17:44 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 18:58 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 18:58 / dck
Potassium	15	mg/L		1		E200.7	09/23/15 19:22 / sld
Selenium	0.002	mg/L		0.001		E200.8	09/28/15 18:58 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 18:58 / dck
Sodium	92	mg/L		1		E200.7	09/23/15 19:22 / sld
Uranium	0.0830	mg/L		0.0002		E200.8	09/28/15 18:58 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 18:58 / dck
Zinc	0.012	mg/L		0.008		E200.8	09/29/15 19:07 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-041
Client Sample ID: GW-ST-WS Field Dup

Report Date: 10/15/15
Collection Date: 09/16/15 18:30
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	25	mg/L		4		A2320 B	09/22/15 10:59 / SRW
Bicarbonate as HCO3	30	mg/L		4		A2320 B	09/22/15 10:59 / SRW
Chloride	35	mg/L		1		E300.0	09/22/15 22:28 / SRW
Sulfate	90	mg/L		1		E300.0	09/22/15 22:28 / SRW
Hardness as CaCO3	111	mg/L		1		A2340 B	09/23/15 19:26 / abb
METALS, DISSOLVED							
Aluminum	0.117	mg/L		0.009		E200.8	09/28/15 19:01 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 19:01 / dck
Arsenic	0.002	mg/L		0.001		E200.8	09/28/15 19:01 / dck
Barium	0.026	mg/L		0.003		E200.8	09/28/15 19:01 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 19:01 / dck
Boron	ND	mg/L		0.1		E200.7	09/23/15 19:26 / sld
Cadmium	0.0240	mg/L		0.00003		E200.8	09/28/15 19:01 / dck
Calcium	33	mg/L		1		E200.7	09/23/15 19:26 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 19:01 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 19:01 / dck
Copper	0.134	mg/L		0.001		E200.8	09/28/15 19:01 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 19:01 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 19:01 / dck
Magnesium	7	mg/L		1		E200.7	09/23/15 19:26 / sld
Manganese	2.20	mg/L		0.001		E200.7	09/23/15 19:26 / sld
Mercury	ND	mg/L		5E-06		E245.1	10/13/15 17:46 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 19:01 / dck
Nickel	0.013	mg/L		0.002		E200.8	09/28/15 19:01 / dck
Potassium	5	mg/L		1		E200.7	09/23/15 19:26 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 19:01 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 19:01 / dck
Sodium	21	mg/L		1		E200.7	09/23/15 19:26 / sld
Uranium	0.0007	mg/L		0.0002		E200.8	09/28/15 19:01 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 19:01 / dck
Zinc	4.06	mg/L		0.008		E200.7	09/23/15 19:26 / sld

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-042
Client Sample ID: P-58A Field Blank

Report Date: 10/15/15
Collection Date: 09/17/15 11:20
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	ND	mg/L		4		A2320 B	09/22/15 11:06 / SRW
Bicarbonate as HCO3	ND	mg/L		4		A2320 B	09/22/15 11:06 / SRW
Chloride	ND	mg/L		1		E300.0	09/22/15 22:39 / SRW
Sulfate	ND	mg/L		1		E300.0	09/22/15 22:39 / SRW
Hardness as CaCO3	ND	mg/L		1		A2340 B	09/30/15 10:14 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 19:05 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 19:05 / dck
Arsenic	ND	mg/L		0.001		E200.8	09/28/15 19:05 / dck
Barium	ND	mg/L		0.003		E200.8	09/28/15 19:05 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 19:05 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 14:41 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 19:05 / dck
Calcium	ND	mg/L		1		E200.7	09/22/15 14:41 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 19:05 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 19:05 / dck
Copper	ND	mg/L		0.001		E200.8	09/28/15 19:05 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 19:05 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 19:05 / dck
Magnesium	ND	mg/L		1		E200.7	09/22/15 14:41 / sld
Manganese	ND	mg/L		0.001		E200.8	09/29/15 19:10 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/09/15 15:47 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 19:05 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 19:05 / dck
Potassium	ND	mg/L		1		E200.7	09/22/15 14:41 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 19:05 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 19:05 / dck
Sodium	ND	mg/L		1		E200.7	09/22/15 14:41 / sld
Uranium	ND	mg/L		0.0002		E200.8	09/28/15 19:05 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 19:05 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 19:05 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-043
Client Sample ID: GW-FR-WS Field Blank

Report Date: 10/15/15
Collection Date: 09/16/15 20:00
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	ND	mg/L		4		A2320 B	09/22/15 11:12 / SRW
Bicarbonate as HCO3	ND	mg/L		4		A2320 B	09/22/15 11:12 / SRW
Chloride	ND	mg/L		1		E300.0	09/22/15 22:51 / SRW
Sulfate	ND	mg/L		1		E300.0	09/22/15 22:51 / SRW
Hardness as CaCO3	ND	mg/L		1		A2340 B	09/29/15 17:08 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 19:18 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 19:18 / dck
Arsenic	ND	mg/L		0.001		E200.8	09/28/15 19:18 / dck
Barium	ND	mg/L		0.003		E200.8	09/28/15 19:18 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 19:18 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 14:53 / sld
Cadmium	ND	mg/L		0.00003		E200.8	10/15/15 16:04 / sld
Calcium	ND	mg/L		1		E200.7	09/22/15 14:53 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 19:18 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 19:18 / dck
Copper	ND	mg/L		0.001		E200.8	09/28/15 19:18 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 19:18 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 19:18 / dck
Magnesium	ND	mg/L		1		E200.7	09/22/15 14:53 / sld
Manganese	ND	mg/L		0.001		E200.8	09/28/15 19:18 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/09/15 15:49 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 19:18 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 19:18 / dck
Potassium	ND	mg/L		1		E200.7	09/22/15 14:53 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 19:18 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 19:18 / dck
Sodium	ND	mg/L		1		E200.7	09/22/15 14:53 / sld
Uranium	ND	mg/L		0.0002		E200.8	09/28/15 19:18 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 19:18 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 19:18 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-044
Client Sample ID: P-06A

Report Date: 10/15/15
Collection Date: 09/15/15 18:00
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	130	mg/L		4		A2320 B	09/22/15 11:18 / SRW
Bicarbonate as HCO3	160	mg/L		4		A2320 B	09/22/15 11:18 / SRW
Chloride	80	mg/L		1		E300.0	09/22/15 23:02 / SRW
Sulfate	181	mg/L		1		E300.0	09/22/15 23:02 / SRW
Hardness as CaCO3	238	mg/L		1		A2340 B	09/22/15 14:57 / abb
METALS, DISSOLVED							
Aluminum	0.297	mg/L		0.009		E200.8	09/28/15 19:21 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 19:21 / dck
Arsenic	0.002	mg/L		0.001		E200.8	09/28/15 19:21 / dck
Barium	0.028	mg/L		0.003		E200.8	09/28/15 19:21 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 19:21 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 14:57 / sld
Cadmium	0.00084	mg/L		0.00003		E200.8	09/28/15 19:21 / dck
Calcium	72	mg/L		1		E200.7	09/22/15 14:57 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 19:21 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 19:21 / dck
Copper	0.031	mg/L		0.001		E200.8	09/28/15 19:21 / dck
Iron	0.14	mg/L		0.02		E200.8	09/28/15 19:21 / dck
Lead	0.0005	mg/L		0.0003		E200.8	09/28/15 19:21 / dck
Magnesium	14	mg/L		1		E200.7	09/22/15 14:57 / sld
Manganese	0.114	mg/L		0.001		E200.8	09/28/15 19:21 / dck
Mercury	7.1E-06	mg/L		5E-06		E245.1	10/13/15 14:57 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 19:21 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 19:21 / dck
Potassium	6	mg/L		1		E200.7	09/22/15 14:57 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 19:21 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 19:21 / dck
Sodium	77	mg/L		1		E200.7	09/22/15 14:57 / sld
Uranium	0.0091	mg/L		0.0002		E200.8	09/28/15 19:21 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 19:21 / dck
Zinc	0.155	mg/L		0.008		E200.8	09/28/15 19:21 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-045
Client Sample ID: MW-2A

Report Date: 10/15/15
Collection Date: 09/15/15 15:00
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	130	mg/L		4		A2320 B	09/22/15 11:25 / SRW
Bicarbonate as HCO3	150	mg/L		4		A2320 B	09/22/15 11:25 / SRW
Chloride	4	mg/L		1		E300.0	09/22/15 23:13 / SRW
Sulfate	205	mg/L		1		E300.0	09/22/15 23:13 / SRW
Hardness as CaCO3	275	mg/L		1		A2340 B	09/22/15 15:11 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 19:24 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 19:24 / dck
Arsenic	0.010	mg/L		0.001		E200.8	09/28/15 19:24 / dck
Barium	0.013	mg/L		0.003		E200.8	09/28/15 19:24 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 19:24 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 15:11 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 19:24 / dck
Calcium	89	mg/L		1		E200.7	09/22/15 15:11 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 19:24 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 19:24 / dck
Copper	ND	mg/L		0.001		E200.8	09/28/15 19:24 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 19:24 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 19:24 / dck
Magnesium	13	mg/L		1		E200.7	09/22/15 15:11 / sld
Manganese	ND	mg/L		0.001		E200.8	09/28/15 19:24 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/09/15 16:15 / eli-b40
Molybdenum	0.008	mg/L		0.005		E200.8	09/28/15 19:24 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 19:24 / dck
Potassium	4	mg/L		1		E200.7	09/22/15 15:11 / sld
Selenium	0.011	mg/L		0.001		E200.8	09/28/15 19:24 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 19:24 / dck
Sodium	27	mg/L		1		E200.7	09/22/15 15:11 / sld
Uranium	0.0418	mg/L		0.0002		E200.8	09/28/15 19:24 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 19:24 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 19:24 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-046
Client Sample ID: MW-2A Field Dup

Report Date: 10/15/15
Collection Date: 09/15/15 15:00
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	130	mg/L		4		A2320 B	09/22/15 11:32 / SRW
Bicarbonate as HCO3	150	mg/L		4		A2320 B	09/22/15 11:32 / SRW
Chloride	4	mg/L		1		E300.0	09/22/15 23:24 / SRW
Sulfate	209	mg/L		1		E300.0	09/22/15 23:24 / SRW
Hardness as CaCO3	267	mg/L		1		A2340 B	09/22/15 15:15 / abb
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 19:27 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 19:27 / dck
Arsenic	0.011	mg/L		0.001		E200.8	09/28/15 19:27 / dck
Barium	0.013	mg/L		0.003		E200.8	09/28/15 19:27 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 19:27 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 15:15 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 19:27 / dck
Calcium	86	mg/L		1		E200.7	09/22/15 15:15 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 19:27 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 19:27 / dck
Copper	ND	mg/L		0.001		E200.8	09/28/15 19:27 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 19:27 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 19:27 / dck
Magnesium	12	mg/L		1		E200.7	09/22/15 15:15 / sld
Manganese	ND	mg/L		0.001		E200.8	09/28/15 19:27 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/09/15 16:18 / eli-b40
Molybdenum	0.008	mg/L		0.005		E200.8	09/28/15 19:27 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 19:27 / dck
Potassium	4	mg/L		1		E200.7	09/22/15 15:15 / sld
Selenium	0.011	mg/L		0.001		E200.8	09/28/15 19:27 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 19:27 / dck
Sodium	28	mg/L		1		E200.7	09/22/15 15:15 / sld
Uranium	0.0416	mg/L		0.0002		E200.8	09/28/15 19:27 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 19:27 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 19:27 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor
Lab ID: H15090363-047
Client Sample ID: LYP-07 Field Blank

Report Date: 10/15/15
Collection Date: 09/15/15 15:45
DateReceived: 09/17/15
Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
INORGANICS							
Alkalinity, Total as CaCO3	ND	mg/L		4		A2320 B	09/22/15 11:38 / SRW
Bicarbonate as HCO3	ND	mg/L		4		A2320 B	09/22/15 11:38 / SRW
Chloride	ND	mg/L		1		E300.0	09/22/15 23:35 / SRW
Sulfate	ND	mg/L		1		E300.0	09/22/15 23:35 / SRW
Hardness as CaCO3	ND	mg/L		1		A2340 B	09/29/15 17:08 / sld
METALS, DISSOLVED							
Aluminum	ND	mg/L		0.009		E200.8	09/28/15 19:31 / dck
Antimony	ND	mg/L		0.0005		E200.8	09/28/15 19:31 / dck
Arsenic	ND	mg/L		0.001		E200.8	09/28/15 19:31 / dck
Barium	ND	mg/L		0.003		E200.8	09/28/15 19:31 / dck
Beryllium	ND	mg/L		0.0008		E200.8	09/28/15 19:31 / dck
Boron	ND	mg/L		0.1		E200.7	09/22/15 15:19 / sld
Cadmium	ND	mg/L		0.00003		E200.8	09/28/15 19:31 / dck
Calcium	ND	mg/L		1		E200.7	09/22/15 15:19 / sld
Chromium	ND	mg/L		0.01		E200.8	09/28/15 19:31 / dck
Cobalt	ND	mg/L		0.01		E200.8	09/28/15 19:31 / dck
Copper	ND	mg/L		0.001		E200.8	09/28/15 19:31 / dck
Iron	ND	mg/L		0.02		E200.8	09/28/15 19:31 / dck
Lead	ND	mg/L		0.0003		E200.8	09/28/15 19:31 / dck
Magnesium	ND	mg/L		1		E200.7	09/22/15 15:19 / sld
Manganese	ND	mg/L		0.001		E200.8	09/28/15 19:31 / dck
Mercury	ND	mg/L		5E-06		E245.1	10/09/15 16:26 / eli-b40
Molybdenum	ND	mg/L		0.005		E200.8	09/28/15 19:31 / dck
Nickel	ND	mg/L		0.002		E200.8	09/28/15 19:31 / dck
Potassium	ND	mg/L		1		E200.7	09/22/15 15:19 / sld
Selenium	ND	mg/L		0.001		E200.8	09/28/15 19:31 / dck
Silver	ND	mg/L		0.0002		E200.8	09/28/15 19:31 / dck
Sodium	ND	mg/L		1		E200.7	09/22/15 15:19 / sld
Uranium	ND	mg/L		0.0002		E200.8	09/28/15 19:31 / dck
Vanadium	ND	mg/L		0.1		E200.8	09/28/15 19:31 / dck
Zinc	ND	mg/L		0.008		E200.8	09/28/15 19:31 / dck

Report Definitions:
RL - Analyte reporting limit.
QCL - Quality control limit.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R109500
Lab ID: MB		Method Blank				Run: PHSC_101-H_150921A			09/21/15 20:00	
Alkalinity, Total as CaCO3		2	mg/L	0.7						
Lab ID: LCS		Laboratory Control Sample				Run: PHSC_101-H_150921A			09/21/15 20:06	
Alkalinity, Total as CaCO3		610	mg/L	4.0	101	90	110			
Lab ID: H15090363-016BDUP	2	Sample Duplicate				Run: PHSC_101-H_150921A			09/21/15 20:29	
Alkalinity, Total as CaCO3		190	mg/L	4.0				2.4	10	
Bicarbonate as HCO3		230	mg/L	4.0				2.4	10	
Lab ID: H15090363-032BDUP	2	Sample Duplicate				Run: PHSC_101-H_150921A			09/21/15 22:39	
Alkalinity, Total as CaCO3		35	mg/L	4.0				0.7	10	
Bicarbonate as HCO3		43	mg/L	4.0				0.7	10	
Method: A2320 B										Batch: R109531
Lab ID: MB		Method Blank				Run: PHSC_101-H_150922A			09/22/15 09:46	
Alkalinity, Total as CaCO3		2	mg/L	0.7						
Lab ID: LCS		Laboratory Control Sample				Run: PHSC_101-H_150922A			09/22/15 09:51	
Alkalinity, Total as CaCO3		600	mg/L	4.0	100	90	110			
Lab ID: H15090324-009ADUP	2	Sample Duplicate				Run: PHSC_101-H_150922A			09/22/15 10:11	
Alkalinity, Total as CaCO3		85	mg/L	4.0				0.8	10	
Bicarbonate as HCO3		100	mg/L	4.0				0.8	10	
Lab ID: H15090385-001ADUP	2	Sample Duplicate				Run: PHSC_101-H_150922A			09/22/15 11:50	
Alkalinity, Total as CaCO3		110	mg/L	4.0				0.3	10	
Bicarbonate as HCO3		130	mg/L	4.0				0.3	10	
Method: A2320 B										Batch: R109570
Lab ID: MB		Method Blank				Run: PHSC_101-H_150923A			09/23/15 09:23	
Alkalinity, Total as CaCO3		2	mg/L	0.7						
Lab ID: LCS		Laboratory Control Sample				Run: PHSC_101-H_150923A			09/23/15 09:29	
Alkalinity, Total as CaCO3		590	mg/L	4.0	98	90	110			
Lab ID: H15090412-001ADUP	2	Sample Duplicate				Run: PHSC_101-H_150923A			09/23/15 10:25	
Alkalinity, Total as CaCO3		170	mg/L	4.0				0.3	10	
Bicarbonate as HCO3		210	mg/L	4.0				0.3	10	
Lab ID: H15090412-004ADUP	2	Sample Duplicate				Run: PHSC_101-H_150923A			09/23/15 10:54	
Alkalinity, Total as CaCO3		140	mg/L	4.0				1.8	10	
Bicarbonate as HCO3		170	mg/L	4.0				1.5	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R109741
Lab ID: MB		Method Blank				Run: PHSC_101-H_150929A				09/29/15 09:58
Alkalinity, Total as CaCO3		2	mg/L	0.7						
Lab ID: LCS		Laboratory Control Sample				Run: PHSC_101-H_150929A				09/29/15 10:03
Alkalinity, Total as CaCO3		590	mg/L	4.0	98	90	110			
Lab ID: H15090534-001ADUP	2	Sample Duplicate				Run: PHSC_101-H_150929A				09/29/15 11:04
Alkalinity, Total as CaCO3		110	mg/L	4.0				2.2	10	
Bicarbonate as HCO3		140	mg/L	4.0				2.2	10	
Lab ID: H15090545-002ADUP	2	Sample Duplicate				Run: PHSC_101-H_150929A				09/29/15 13:41
Alkalinity, Total as CaCO3		180	mg/L	4.0				0.4	10	
Bicarbonate as HCO3		220	mg/L	4.0				0.4	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: ICP2-HE_150922B	
Lab ID: ICV	9	Initial Calibration Verification Standard							09/22/15 09:36	
Aluminum		4.04	mg/L	0.10	101	95	105			
Boron		0.784	mg/L	0.10	98	95	105			
Calcium		40.0	mg/L	1.0	100	95	105			
Copper		0.798	mg/L	0.010	100	95	105			
Magnesium		39.9	mg/L	1.0	100	95	105			
Manganese		3.90	mg/L	0.010	98	95	105			
Potassium		39.7	mg/L	1.0	99	95	105			
Sodium		39.6	mg/L	1.0	99	95	105			
Zinc		0.781	mg/L	0.010	98	95	105			
Lab ID: CCV-1	9	Continuing Calibration Verification Standard							09/22/15 09:40	
Aluminum		2.50	mg/L	0.10	100	95	105			
Boron		2.48	mg/L	0.10	99	95	105			
Calcium		25.6	mg/L	1.0	102	95	105			
Copper		2.49	mg/L	0.010	100	95	105			
Magnesium		25.3	mg/L	1.0	101	95	105			
Manganese		2.45	mg/L	0.010	98	95	105			
Potassium		24.8	mg/L	1.0	99	95	105			
Sodium		24.7	mg/L	1.0	99	95	105			
Zinc		2.46	mg/L	0.010	98	95	105			
Lab ID: ICSA	9	Interference Check Sample A							09/22/15 09:56	
Aluminum		522	mg/L	0.10	104	80	120			
Boron		-0.00112	mg/L	0.10		0	0			
Calcium		461	mg/L	1.0	92	80	120			
Copper		-0.00259	mg/L	0.010		0	0			
Magnesium		520	mg/L	1.0	104	80	120			
Manganese		-0.00605	mg/L	0.010		0	0			
Potassium		-0.00274	mg/L	1.0		0	0			
Sodium		0.0168	mg/L	1.0		0	0			
Zinc		0.00465	mg/L	0.010		0	0			
Lab ID: ICSAB	9	Interference Check Sample AB							09/22/15 10:00	
Aluminum		529	mg/L	0.10	106	80	120			
Boron		1.00	mg/L	0.10	100	80	120			
Calcium		469	mg/L	1.0	94	80	120			
Copper		0.518	mg/L	0.010	104	80	120			
Magnesium		529	mg/L	1.0	106	80	120			
Manganese		0.469	mg/L	0.010	94	80	120			
Potassium		20.8	mg/L	1.0	104	80	120			
Sodium		20.9	mg/L	1.0	104	80	120			
Zinc		0.991	mg/L	0.010	99	80	120			
Lab ID: CCV	9	Continuing Calibration Verification Standard							09/22/15 11:17	
Aluminum		2.51	mg/L	0.10	100	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: ICP2-HE_150922B	
Lab ID: CCV	9	Continuing Calibration Verification Standard							09/22/15 11:17	
Boron		2.51	mg/L	0.10	100	90	110			
Calcium		25.1	mg/L	1.0	100	90	110			
Copper		2.49	mg/L	0.010	100	90	110			
Magnesium		25.3	mg/L	1.0	101	90	110			
Manganese		2.42	mg/L	0.010	97	90	110			
Potassium		24.0	mg/L	1.0	96	90	110			
Sodium		24.1	mg/L	1.0	96	90	110			
Zinc		2.50	mg/L	0.010	100	90	110			
Lab ID: CCV	9	Continuing Calibration Verification Standard							09/22/15 12:02	
Aluminum		2.51	mg/L	0.10	100	90	110			
Boron		2.50	mg/L	0.10	100	90	110			
Calcium		24.5	mg/L	1.0	98	90	110			
Copper		2.49	mg/L	0.010	99	90	110			
Magnesium		24.6	mg/L	1.0	98	90	110			
Manganese		2.38	mg/L	0.010	95	90	110			
Potassium		24.9	mg/L	1.0	100	90	110			
Sodium		25.2	mg/L	1.0	101	90	110			
Zinc		2.47	mg/L	0.010	99	90	110			
Lab ID: CCV	9	Continuing Calibration Verification Standard							09/22/15 12:47	
Aluminum		2.54	mg/L	0.10	102	90	110			
Boron		2.49	mg/L	0.10	99	90	110			
Calcium		24.1	mg/L	1.0	97	90	110			
Copper		2.49	mg/L	0.010	100	90	110			
Magnesium		24.4	mg/L	1.0	97	90	110			
Manganese		2.35	mg/L	0.010	94	90	110			
Potassium		24.6	mg/L	1.0	98	90	110			
Sodium		24.9	mg/L	1.0	100	90	110			
Zinc		2.47	mg/L	0.010	99	90	110			
Lab ID: CCV	9	Continuing Calibration Verification Standard							09/22/15 14:00	
Aluminum		2.59	mg/L	0.10	104	90	110			
Boron		2.51	mg/L	0.10	101	90	110			
Calcium		25.8	mg/L	1.0	103	90	110			
Copper		2.56	mg/L	0.010	103	90	110			
Magnesium		25.1	mg/L	1.0	101	90	110			
Manganese		2.55	mg/L	0.010	102	90	110			
Potassium		25.9	mg/L	1.0	104	90	110			
Sodium		26.0	mg/L	1.0	104	90	110			
Zinc		2.55	mg/L	0.010	102	90	110			
Lab ID: CCV	9	Continuing Calibration Verification Standard							09/22/15 14:45	
Aluminum		2.55	mg/L	0.10	102	90	110			
Boron		2.56	mg/L	0.10	103	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.7**									Analytical Run: ICP2-HE_150922B	
Lab ID:	**CCV**	9	Continuing Calibration Verification Standard							09/22/15 14:45	
Calcium			25.1	mg/L	1.0	100	90	110			
Copper			2.50	mg/L	0.010	100	90	110			
Magnesium			24.6	mg/L	1.0	98	90	110			
Manganese			2.49	mg/L	0.010	99	90	110			
Potassium			24.6	mg/L	1.0	98	90	110			
Sodium			24.7	mg/L	1.0	99	90	110			
Zinc			2.57	mg/L	0.010	103	90	110			
Method:	**E200.7**										Batch: R109578
Lab ID:	**ICB**	9	Method Blank				Run: ICP2-HE_150922B			09/22/15 10:13	
Aluminum			ND	mg/L	0.004						
Boron			ND	mg/L	0.003						
Calcium			0.06	mg/L	0.03						
Copper			ND	mg/L	0.005						
Magnesium			0.009	mg/L	0.005						
Manganese			ND	mg/L	0.0007						
Potassium			ND	mg/L	0.07						
Sodium			ND	mg/L	0.02						
Zinc			ND	mg/L	0.002						
Lab ID:	**LFB**	9	Laboratory Fortified Blank				Run: ICP2-HE_150922B			09/22/15 10:16	
Aluminum			5.01	mg/L	0.10	100	85	115			
Boron			0.963	mg/L	0.10	96	85	115			
Calcium			49.1	mg/L	1.0	98	85	115			
Copper			0.996	mg/L	0.010	100	85	115			
Magnesium			49.3	mg/L	1.0	99	85	115			
Manganese			4.81	mg/L	0.010	96	85	115			
Potassium			48.7	mg/L	1.0	97	85	115			
Sodium			48.9	mg/L	1.0	98	85	115			
Zinc			0.960	mg/L	0.010	96	85	115			
Lab ID:	**H15090385-001CMS2**	9	Sample Matrix Sp ke				Run: ICP2-HE_150922B			09/22/15 11:28	
Aluminum			5.12	mg/L	0.030	102	70	130			
Boron			1.01	mg/L	0.050	100	70	130			
Calcium			122	mg/L	1.0	101	70	130			
Copper			1.01	mg/L	0.0050	101	70	130			
Magnesium			69.6	mg/L	1.0	106	70	130			
Manganese			4.89	mg/L	0.0010	97	70	130			
Potassium			52.5	mg/L	1.0	97	70	130			
Sodium			61.0	mg/L	1.0	98	70	130			
Zinc			1.03	mg/L	0.010	102	70	130			
Lab ID:	**H15090385-001CMSD**	9	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_150922B			09/22/15 11:31	
Aluminum			5.14	mg/L	0.030	103	70	130	0.4	20	
Boron			1.00	mg/L	0.050	99	70	130	0.5	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R109578	
Lab ID: H15090385-001CMSD	9	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_150922B			09/22/15 11:31	
Calcium		122	mg/L	1.0	101	70	130	0.3	20	
Copper		1.02	mg/L	0.0050	102	70	130	1.0	20	
Magnesium		69.1	mg/L	1.0	105	70	130	0.7	20	
Manganese		4.91	mg/L	0.0010	98	70	130	0.4	20	
Potassium		52.7	mg/L	1.0	98	70	130	0.2	20	
Sodium		61.2	mg/L	1.0	98	70	130	0.3	20	
Zinc		1.01	mg/L	0.010	101	70	130	1.1	20	
Lab ID: MB-30605	9	Method Blank				Run: ICP2-HE_150922B			09/22/15 11:39	
Aluminum		0.009	mg/L	0.004						
Boron		0.005	mg/L	0.003						
Calcium		0.2	mg/L	0.03						
Copper		ND	mg/L	0.005						
Magnesium		ND	mg/L	0.02						
Manganese		ND	mg/L	0.0007						
Potassium		ND	mg/L	0.07						
Sodium		0.04	mg/L	0.02						
Zinc		0.006	mg/L	0.002						
Lab ID: H15090397-001BMS2	9	Sample Matrix Sp ke				Run: ICP2-HE_150922B			09/22/15 12:32	
Aluminum		6.31	mg/L	0.030	108	70	130			
Boron		0.991	mg/L	0.050	99	70	130			
Calcium		343	mg/L	1.0		70	130			A
Copper		6.55	mg/L	0.0050		70	130			A
Magnesium		180	mg/L	1.0	117	70	130			
Manganese		119	mg/L	0.0010		70	130			A
Potassium		54.0	mg/L	1.0	98	70	130			
Sodium		56.2	mg/L	1.0	100	70	130			
Zinc		118	mg/L	0.010		70	130			A
Lab ID: H15090397-001BMSD	9	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_150922B			09/22/15 12:36	
Aluminum		6.36	mg/L	0.030	109	70	130	0.9	20	
Boron		1.04	mg/L	0.050	104	70	130	5.2	20	
Calcium		350	mg/L	1.0		70	130	1.9	20	A
Copper		6.66	mg/L	0.0050		70	130	1.7	20	A
Magnesium		185	mg/L	1.0	127	70	130	2.7	20	
Manganese		121	mg/L	0.0010		70	130	1.9	20	A
Potassium		54.2	mg/L	1.0	99	70	130	0.4	20	
Sodium		56.5	mg/L	1.0	100	70	130	0.5	20	
Zinc		125	mg/L	0.010		70	130	5.5	20	A
Lab ID: MB-30597	9	Method Blank				Run: ICP2-HE_150922B			09/22/15 13:07	
Aluminum		ND	mg/L	0.004						
Boron		ND	mg/L	0.003						
Calcium		0.1	mg/L	0.03						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the sp ke level. In accordance with the method % recovery is not calculated.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.7**									Batch: R109578	
Lab ID:	**MB-30597**	9	Method Blank				Run: ICP2-HE_150922B			09/22/15 13:07	
Copper			ND	mg/L	0.005						
Magnesium			ND	mg/L	0.02						
Manganese			0.007	mg/L	0.0007						
Potassium			ND	mg/L	0.07						
Sodium			ND	mg/L	0.02						
Zinc			0.006	mg/L	0.002						
Lab ID:	**H15090363-012AMS2**	9	Sample Matrix Sp ke				Run: ICP2-HE_150922B			09/22/15 14:08	
Aluminum			5.19	mg/L	0.030	104	70	130			
Boron			1.09	mg/L	0.050	97	70	130			
Calcium			158	mg/L	1.0	107	70	130			
Copper			1.02	mg/L	0.0050	102	70	130			
Magnesium			69.0	mg/L	1.0	98	70	130			
Manganese			4.89	mg/L	0.0010	98	70	130			
Potassium			57.8	mg/L	1.0	103	70	130			
Sodium			196	mg/L	1.0	100	70	130			
Zinc			0.998	mg/L	0.010	99	70	130			
Lab ID:	**H15090363-012AMSD**	9	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_150922B			09/22/15 14:11	
Aluminum			5.20	mg/L	0.030	104	70	130	0.1	20	
Boron			1.08	mg/L	0.050	97	70	130	0.4	20	
Calcium			161	mg/L	1.0	114	70	130	2.2	20	
Copper			1.02	mg/L	0.0050	102	70	130	0.2	20	
Magnesium			71.5	mg/L	1.0	103	70	130	3.6	20	
Manganese			4.98	mg/L	0.0010	100	70	130	1.8	20	
Potassium			57.8	mg/L	1.0	102	70	130	0.0	20	
Sodium			196	mg/L	1.0	101	70	130	0.1	20	
Zinc			1.01	mg/L	0.010	101	70	130	1.3	20	
Lab ID:	**H15090363-044AMS2**	9	Sample Matrix Sp ke				Run: ICP2-HE_150922B			09/22/15 15:04	
Aluminum			5.33	mg/L	0.030	104	70	130			
Boron			1.08	mg/L	0.050	99	70	130			
Calcium			119	mg/L	1.0	93	70	130			
Copper			1.06	mg/L	0.0050	103	70	130			
Magnesium			61.5	mg/L	1.0	95	70	130			
Manganese			5.01	mg/L	0.0010	98	70	130			
Potassium			57.6	mg/L	1.0	104	70	130			
Sodium			132	mg/L	1.0	109	70	130			
Zinc			1.15	mg/L	0.010	99	70	130			
Lab ID:	**H15090363-044AMSD**	9	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_150922B			09/22/15 15:08	
Aluminum			5.39	mg/L	0.030	106	70	130	1.1	20	
Boron			1.08	mg/L	0.050	99	70	130	0.2	20	
Calcium			122	mg/L	1.0	99	70	130	2.1	20	
Copper			1.06	mg/L	0.0050	103	70	130	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7										Batch: R109578
Lab ID: H15090363-044AMSD	9	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_150922B			09/22/15 15:08	
Magnesium		62.7	mg/L	1.0	97	70	130	1.9	20	
Manganese		5.06	mg/L	0.0010	99	70	130	1.0	20	
Potassium		56.8	mg/L	1.0	102	70	130	1.3	20	
Sodium		130	mg/L	1.0	107	70	130	1.1	20	
Zinc		1.17	mg/L	0.010	101	70	130	1.6	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: ICP2-HE_150923B	
Lab ID: ICV	8	Initial Calibration Verification Standard							09/23/15 11:34	
Boron		0.779	mg/L	0.10	97	95	105			
Calcium		39.7	mg/L	1.0	99	95	105			
Iron		3.97	mg/L	0.020	99	95	105			
Magnesium		38.8	mg/L	1.0	97	95	105			
Manganese		4.01	mg/L	0.010	100	95	105			
Potassium		40.6	mg/L	1.0	101	95	105			
Sodium		40.6	mg/L	1.0	102	95	105			
Zinc		0.794	mg/L	0.010	99	95	105			
Lab ID: CCV-1	8	Continuing Calibration Verification Standard							09/23/15 11:38	
Boron		2.53	mg/L	0.10	101	95	105			
Calcium		25.3	mg/L	1.0	101	95	105			
Iron		2.51	mg/L	0.020	100	95	105			
Magnesium		24.5	mg/L	1.0	98	95	105			
Manganese		2.52	mg/L	0.010	101	95	105			
Potassium		25.1	mg/L	1.0	100	95	105			
Sodium		25.1	mg/L	1.0	100	95	105			
Zinc		2.53	mg/L	0.010	101	95	105			
Lab ID: ICSA	8	Interference Check Sample A							09/23/15 11:49	
Boron		-0.00323	mg/L	0.10		0	0			
Calcium		469	mg/L	1.0	94	80	120			
Iron		183	mg/L	0.020	92	80	120			
Magnesium		518	mg/L	1.0	104	80	120			
Manganese		-0.00715	mg/L	0.010		0	0			
Potassium		-0.0427	mg/L	1.0		0	0			
Sodium		0.0231	mg/L	1.0		0	0			
Zinc		0.00417	mg/L	0.010		0	0			
Lab ID: ICSAB	8	Interference Check Sample AB							09/23/15 11:53	
Boron		0.981	mg/L	0.10	98	80	120			
Calcium		462	mg/L	1.0	92	80	120			
Iron		182	mg/L	0.020	91	80	120			
Magnesium		512	mg/L	1.0	102	80	120			
Manganese		0.479	mg/L	0.010	96	80	120			
Potassium		20.7	mg/L	1.0	104	80	120			
Sodium		20.9	mg/L	1.0	104	80	120			
Zinc		1.00	mg/L	0.010	100	80	120			
Lab ID: CCV	8	Continuing Calibration Verification Standard							09/23/15 17:33	
Boron		2.50	mg/L	0.10	100	90	110			
Calcium		25.6	mg/L	1.0	102	90	110			
Iron		2.53	mg/L	0.020	101	90	110			
Magnesium		25.1	mg/L	1.0	100	90	110			
Manganese		2.48	mg/L	0.010	99	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.7**								Analytical Run: ICP2-HE_150923B		
Lab ID:	**CCV**	8	Continuing Calibration Verification Standard							09/23/15 17:33	
Potassium			25.6	mg/L	1.0	102	90	110			
Sodium			25.5	mg/L	1.0	102	90	110			
Zinc			2.52	mg/L	0.010	101	90	110			
Lab ID:	**CCV**	8	Continuing Calibration Verification Standard							09/23/15 18:18	
Boron			2.40	mg/L	0.10	96	90	110			
Calcium			25.7	mg/L	1.0	103	90	110			
Iron			2.54	mg/L	0.020	102	90	110			
Magnesium			25.4	mg/L	1.0	101	90	110			
Manganese			2.49	mg/L	0.010	99	90	110			
Potassium			25.4	mg/L	1.0	102	90	110			
Sodium			25.3	mg/L	1.0	101	90	110			
Zinc			2.47	mg/L	0.010	99	90	110			
Lab ID:	**CCV**	8	Continuing Calibration Verification Standard							09/23/15 19:03	
Boron			2.45	mg/L	0.10	98	90	110			
Calcium			25.4	mg/L	1.0	102	90	110			
Iron			2.52	mg/L	0.020	101	90	110			
Magnesium			25.0	mg/L	1.0	100	90	110			
Manganese			2.47	mg/L	0.010	99	90	110			
Potassium			25.7	mg/L	1.0	103	90	110			
Sodium			25.7	mg/L	1.0	103	90	110			
Zinc			2.49	mg/L	0.010	100	90	110			
Lab ID:	**CCV**	8	Continuing Calibration Verification Standard							09/23/15 20:14	
Boron			2.48	mg/L	0.10	99	90	110			
Calcium			25.5	mg/L	1.0	102	90	110			
Iron			2.53	mg/L	0.020	101	90	110			
Magnesium			25.0	mg/L	1.0	100	90	110			
Manganese			2.50	mg/L	0.010	100	90	110			
Potassium			25.0	mg/L	1.0	100	90	110			
Sodium			24.9	mg/L	1.0	100	90	110			
Zinc			2.48	mg/L	0.010	99	90	110			
Method:	**E200.7**									Batch: R109594	
Lab ID:	**ICB**	8	Method Blank				Run: ICP2-HE_150923B			09/23/15 12:01	
Boron			ND	mg/L	0.003						
Calcium			0.05	mg/L	0.03						
Iron			ND	mg/L	0.006						
Magnesium			0.009	mg/L	0.005						
Manganese			ND	mg/L	0.0007						
Potassium			ND	mg/L	0.07						
Sodium			ND	mg/L	0.02						
Zinc			ND	mg/L	0.002						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.7**										Batch: R109594
Lab ID:	**LFB**	8	Laboratory Fortified Blank				Run: ICP2-HE_150923B				09/23/15 12:05
Boron			0.989	mg/L	0.10	99	85	115			
Calcium			50.9	mg/L	1.0	102	85	115			
Iron			5.02	mg/L	0.020	100	85	115			
Magnesium			50.8	mg/L	1.0	102	85	115			
Manganese			5.09	mg/L	0.010	102	85	115			
Potassium			50.2	mg/L	1.0	100	85	115			
Sodium			50.0	mg/L	1.0	100	85	115			
Zinc			1.03	mg/L	0.010	103	85	115			
Lab ID:	**MB-30615**	8	Method Blank				Run: ICP2-HE_150923B				09/23/15 17:59
Boron			ND	mg/L	0.003						
Calcium			0.2	mg/L	0.03						
Iron			ND	mg/L	0.006						
Magnesium			0.009	mg/L	0.005						
Manganese			ND	mg/L	0.0007						
Potassium			ND	mg/L	0.07						
Sodium			ND	mg/L	0.02						
Zinc			0.003	mg/L	0.002						
Lab ID:	**H15090363-032AMS2**	8	Sample Matrix Sp ke				Run: ICP2-HE_150923B				09/23/15 18:45
Boron			0.995	mg/L	0.050	97	70	130			
Calcium			84.3	mg/L	1.0	98	70	130			
Iron			4.92	mg/L	0.020	98	70	130			
Magnesium			56.2	mg/L	1.0	98	70	130			
Manganese			5.20	mg/L	0.0010	97	70	130			
Potassium			56.1	mg/L	1.0	101	70	130			
Sodium			75.3	mg/L	1.0	102	70	130			
Zinc			1.00	mg/L	0.010	99	70	130			
Lab ID:	**H15090363-032AMSD**	8	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_150923B				09/23/15 18:48
Boron			1.01	mg/L	0.050	98	70	130	1.3	20	
Calcium			84.8	mg/L	1.0	99	70	130	0.6	20	
Iron			4.95	mg/L	0.020	99	70	130	0.6	20	
Magnesium			56.8	mg/L	1.0	99	70	130	1.0	20	
Manganese			5.23	mg/L	0.0010	98	70	130	0.6	20	
Potassium			55.2	mg/L	1.0	100	70	130	1.5	20	
Sodium			74.1	mg/L	1.0	99	70	130	1.6	20	
Zinc			1.02	mg/L	0.010	101	70	130	1.4	20	
Lab ID:	**H15090363-041AMS2**	8	Sample Matrix Sp ke				Run: ICP2-HE_150923B				09/23/15 19:33
Boron			1.07	mg/L	0.050	102	70	130			
Calcium			83.1	mg/L	1.0	100	70	130			
Iron			4.97	mg/L	0.020	99	70	130			
Magnesium			57.8	mg/L	1.0	102	70	130			
Manganese			7.12	mg/L	0.0010	98	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R109594	
Lab ID: H15090363-041AMS2	8	Sample Matrix Sp ke				Run: ICP2-HE_150923B			09/23/15 19:33	
Potassium		54.8	mg/L	1.0	100	70	130			
Sodium		71.4	mg/L	1.0	100	70	130			
Zinc		5.23	mg/L	0.010		70	130			A
Lab ID: H15090363-041AMSD	8	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_150923B			09/23/15 19:37	
Boron		1.04	mg/L	0.050	98	70	130	3.7	20	
Calcium		81.2	mg/L	1.0	96	70	130	2.4	20	
Iron		4.90	mg/L	0.020	98	70	130	1.4	20	
Magnesium		55.7	mg/L	1.0	98	70	130	3.7	20	
Manganese		7.01	mg/L	0.0010	96	70	130	1.6	20	
Potassium		55.0	mg/L	1.0	101	70	130	0.5	20	
Sodium		72.1	mg/L	1.0	102	70	130	1.1	20	
Zinc		4.97	mg/L	0.010		70	130	5.0	20	A

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the sp ke level. In accordance with the method % recovery is not calculated.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_150928B		
Lab ID: ICV STD	23	Initial Calibration Verification Standard								09/28/15 12:39
Aluminum		0.301	mg/L	0.10	100	90	110			
Antimony		0.0601	mg/L	0.050	100	90	110			
Arsenic		0.0618	mg/L	0.0050	103	90	110			
Barium		0.0593	mg/L	0.10	99	90	110			
Beryllium		0.0294	mg/L	0.0010	98	90	110			
Cadmium		0.0308	mg/L	0.0010	103	90	110			
Calcium		3.10	mg/L	0.50	103	90	110			
Chromium		0.0601	mg/L	0.010	100	90	110			
Cobalt		0.0603	mg/L	0.010	101	90	110			
Copper		0.0620	mg/L	0.010	103	90	110			
Iron		0.318	mg/L	0.020	106	90	110			
Lead		0.0588	mg/L	0.010	98	90	110			
Magnesium		3.18	mg/L	0.50	106	90	110			
Manganese		0.302	mg/L	0.010	101	90	110			
Molybdenum		0.0613	mg/L	0.0050	102	90	110			
Nickel		0.0612	mg/L	0.010	102	90	110			
Potassium		3.01	mg/L	0.50	100	90	110			
Selenium		0.0642	mg/L	0.0050	107	90	110			
Silver		0.0299	mg/L	0.0050	100	90	110			
Sodium		3.17	mg/L	0.50	106	90	110			
Uranium		0.0576	mg/L	0.0010	96	90	110			
Vanadium		0.0596	mg/L	0.10	99	90	110			
Zinc		0.0620	mg/L	0.010	103	90	110			
Lab ID: ICSA	23	Interference Check Sample A								09/28/15 12:43
Aluminum		37.2	mg/L	0.10	93	70	130			
Antimony		0.000430	mg/L	0.050						
Arsenic		8.80E-05	mg/L	0.0050						
Barium		7.90E-05	mg/L	0.10						
Beryllium		-1.10E-05	mg/L	0.0010						
Cadmium		0.000388	mg/L	0.0010						
Calcium		120	mg/L	0.50	100	70	130			
Chromium		0.00106	mg/L	0.010						
Cobalt		3.00E-05	mg/L	0.010						
Copper		0.000331	mg/L	0.010						
Iron		99.4	mg/L	0.020	99	70	130			
Lead		0.000213	mg/L	0.010						
Magnesium		40.3	mg/L	0.50	101	70	130			
Manganese		0.000380	mg/L	0.010						
Molybdenum		0.848	mg/L	0.0050	106	70	130			
Nickel		0.000601	mg/L	0.010						
Potassium		40.2	mg/L	0.50	100	70	130			
Selenium		0.000274	mg/L	0.0050						
Silver		0.000113	mg/L	0.0050						

Qualifiers:

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ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_150928B		
Lab ID: ICSA	23	Interference Check Sample A							09/28/15 12:43	
Sodium		99.8	mg/L	0.50	100	70	130			
Uranium		0.000124	mg/L	0.0010						
Vanadium		0.000253	mg/L	0.10						
Zinc		0.000929	mg/L	0.010						
Lab ID: ICSAB	23	Interference Check Sample AB							09/28/15 12:46	
Aluminum		37.1	mg/L	0.10	93	70	130			
Antimony		0.000193	mg/L	0.050		0	0			
Arsenic		0.0111	mg/L	0.0050	111	70	130			
Barium		7.40E-05	mg/L	0.10		0	0			
Beryllium		-1.10E-05	mg/L	0.0010		0	0			
Cadmium		0.0111	mg/L	0.0010	111	70	130			
Calcium		118	mg/L	0.50	98	70	130			
Chromium		0.0228	mg/L	0.010	114	70	130			
Cobalt		0.0219	mg/L	0.010	110	70	130			
Copper		0.0219	mg/L	0.010	109	70	130			
Iron		98.5	mg/L	0.020	99	70	130			
Lead		0.000208	mg/L	0.010		0	0			
Magnesium		40.1	mg/L	0.50	100	70	130			
Manganese		0.0219	mg/L	0.010	110	70	130			
Molybdenum		0.839	mg/L	0.0050	105	70	130			
Nickel		0.0223	mg/L	0.010	112	70	130			
Potassium		39.7	mg/L	0.50	99	70	130			
Selenium		0.0111	mg/L	0.0050	111	70	130			
Silver		0.0199	mg/L	0.0050	99	70	130			
Sodium		99.1	mg/L	0.50	99	70	130			
Uranium		2.80E-05	mg/L	0.0010		0	0			
Vanadium		0.0216	mg/L	0.10	108	70	130			
Zinc		0.0114	mg/L	0.010	114	70	130			
Method: E200.8									Batch: R109773	
Lab ID: ICB	23	Method Blank				Run: ICPMS204-B_150928B			09/28/15 14:58	
Aluminum		0.0009	mg/L	0.0008						
Antimony		ND	mg/L	4E-05						
Arsenic		ND	mg/L	6E-05						
Barium		ND	mg/L	8E-05						
Beryllium		ND	mg/L	0.0002						
Cadmium		ND	mg/L	2E-05						
Calcium		ND	mg/L	0.010						
Chromium		ND	mg/L	3E-05						
Cobalt		ND	mg/L	3E-05						
Copper		ND	mg/L	6E-05						
Iron		ND	mg/L	0.0006						
Lead		ND	mg/L	3E-05						

Qualifiers:

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ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R109773
Lab ID: ICB	23	Method Blank				Run: ICPMS204-B_150928B				09/28/15 14:58
Magnesium		ND	mg/L	0.0003						
Manganese		ND	mg/L	4E-05						
Molybdenum		ND	mg/L	3E-05						
Nickel		ND	mg/L	3E-05						
Potassium		ND	mg/L	0.008						
Selenium		ND	mg/L	0.0002						
Silver		ND	mg/L	3E-05						
Sodium		ND	mg/L	0.008						
Uranium		ND	mg/L	1.0E-05						
Vanadium		ND	mg/L	3E-05						
Zinc		0.0009	mg/L	0.0001						
Lab ID: LFB	23	Laboratory Fortified Blank				Run: ICPMS204-B_150928B				09/28/15 15:01
Aluminum		0.0495	mg/L	0.10	97	85	115			
Antimony		0.0477	mg/L	0.050	95	85	115			
Arsenic		0.0499	mg/L	0.0050	100	85	115			
Barium		0.0481	mg/L	0.10	96	85	115			
Beryllium		0.0489	mg/L	0.0010	98	85	115			
Cadmium		0.0502	mg/L	0.0010	100	85	115			
Calcium		1.06	mg/L	0.50	106	85	115			
Chromium		0.0488	mg/L	0.010	98	85	115			
Cobalt		0.0495	mg/L	0.010	99	85	115			
Copper		0.0498	mg/L	0.010	100	85	115			
Iron		0.150	mg/L	0.020	100	85	115			
Lead		0.0482	mg/L	0.010	97	85	115			
Magnesium		0.981	mg/L	0.50	98	85	115			
Manganese		0.0498	mg/L	0.010	100	85	115			
Molybdenum		0.0485	mg/L	0.0050	97	85	115			
Nickel		0.0500	mg/L	0.010	100	85	115			
Potassium		0.948	mg/L	0.50	95	85	115			
Selenium		0.0539	mg/L	0.0050	108	85	115			
Silver		0.0196	mg/L	0.0050	98	85	115			
Sodium		0.966	mg/L	0.50	97	85	115			
Uranium		0.0454	mg/L	0.0010	91	85	115			
Vanadium		0.0466	mg/L	0.10	93	85	115			
Zinc		0.0528	mg/L	0.010	104	85	115			
Lab ID: MB-30597	23	Method Blank				Run: ICPMS204-B_150928B				09/28/15 15:08
Aluminum		0.002	mg/L	0.0008						
Antimony		0.0002	mg/L	4E-05						
Arsenic		ND	mg/L	6E-05						
Barium		ND	mg/L	8E-05						
Beryllium		ND	mg/L	0.0002						
Cadmium		ND	mg/L	2E-05						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R109773	
Lab ID: MB-30597	23	Method Blank				Run: ICPMS204-B_150928B			09/28/15 15:08	
Calcium		0.07	mg/L	0.010						
Chromium		ND	mg/L	3E-05						
Cobalt		ND	mg/L	3E-05						
Copper		8E-05	mg/L	6E-05						
Iron		0.003	mg/L	0.0006						
Lead		ND	mg/L	3E-05						
Magnesium		0.002	mg/L	0.0003						
Manganese		4E-05	mg/L	4E-05						
Molybdenum		4E-05	mg/L	3E-05						
Nickel		ND	mg/L	3E-05						
Potassium		ND	mg/L	0.008						
Selenium		ND	mg/L	0.0002						
Silver		7E-05	mg/L	3E-05						
Sodium		ND	mg/L	0.008						
Uranium		3E-05	mg/L	1.0E-05						
Vanadium		ND	mg/L	3E-05						
Zinc		0.001	mg/L	0.0001						
Lab ID: H15090363-001AMS	23	Sample Matrix Sp ke				Run: ICPMS204-B_150928B			09/28/15 15:14	
Aluminum		0.0498	mg/L	0.030	94	70	130			
Antimony		0.0493	mg/L	0.0010	98	70	130			
Arsenic		0.0545	mg/L	0.0010	101	70	130			
Barium		0.0897	mg/L	0.050	96	70	130			
Beryllium		0.0478	mg/L	0.0010	96	70	130			
Cadmium		0.0478	mg/L	0.0010	96	70	130			
Calcium		98.5	mg/L	1.0		70	130			A
Chromium		0.0481	mg/L	0.0050	96	70	130			
Cobalt		0.0476	mg/L	0.0050	95	70	130			
Copper		0.0482	mg/L	0.0050	95	70	130			
Iron		0.152	mg/L	0.020	98	70	130			
Lead		0.0484	mg/L	0.0010	97	70	130			
Magnesium		21.9	mg/L	1.0		70	130			A
Manganese		0.0486	mg/L	0.0010	97	70	130			
Molybdenum		0.0527	mg/L	0.0010	99	70	130			
Nickel		0.0478	mg/L	0.0050	95	70	130			
Potassium		4.17	mg/L	1.0	102	70	130			
Selenium		0.0577	mg/L	0.0010	105	70	130			
Silver		0.0189	mg/L	0.0010	94	70	130			
Sodium		36.4	mg/L	1.0		70	130			A
Uranium		0.127	mg/L	0.00030	97	70	130			
Vanadium		0.0492	mg/L	0.010	94	70	130			
Zinc		0.0524	mg/L	0.010	95	70	130			

Qualifiers:

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ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the sp ke level. In accordance with the method % recovery is not calculated.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R109773	
Lab ID: H15090363-001AMSD	23	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150928B			09/28/15 15:17	
Aluminum		0.0491	mg/L	0.030	93	70	130	1.4	20	
Antimony		0.0496	mg/L	0.0010	99	70	130	0.6	20	
Arsenic		0.0539	mg/L	0.0010	100	70	130	1.1	20	
Barium		0.0896	mg/L	0.050	96	70	130	0.2	20	
Beryllium		0.0494	mg/L	0.0010	99	70	130	3.3	20	
Cadmium		0.0486	mg/L	0.0010	97	70	130	1.7	20	
Calcium		99.6	mg/L	1.0		70	130	1.2	20	A
Chromium		0.0484	mg/L	0.0050	97	70	130	0.7	20	
Cobalt		0.0475	mg/L	0.0050	95	70	130	0.3	20	
Copper		0.0483	mg/L	0.0050	95	70	130	0.2	20	
Iron		0.153	mg/L	0.020	99	70	130	1.0	20	
Lead		0.0485	mg/L	0.0010	97	70	130	0.3	20	
Magnesium		21.9	mg/L	1.0		70	130	0.1	20	A
Manganese		0.0491	mg/L	0.0010	98	70	130	1.1	20	
Molybdenum		0.0532	mg/L	0.0010	100	70	130	1.0	20	
Nickel		0.0479	mg/L	0.0050	95	70	130	0.3	20	
Potassium		4.21	mg/L	1.0	105	70	130	0.9	20	
Selenium		0.0592	mg/L	0.0010	108	70	130	2.6	20	
Silver		0.0193	mg/L	0.0010	97	70	130	2.3	20	
Sodium		36.5	mg/L	1.0		70	130	0.4	20	A
Uranium		0.128	mg/L	0.00030	98	70	130	0.6	20	
Vanadium		0.0495	mg/L	0.010	95	70	130	0.6	20	
Zinc		0.0530	mg/L	0.010	96	70	130	1.2	20	
Lab ID: MB-30618	23	Method Blank				Run: ICPMS204-B_150928B			09/28/15 15:53	
Aluminum		0.004	mg/L	0.0008						
Antimony		0.0001	mg/L	4E-05						
Arsenic		ND	mg/L	6E-05						
Barium		0.001	mg/L	8E-05						
Beryllium		ND	mg/L	0.0002						
Cadmium		ND	mg/L	2E-05						
Calcium		0.7	mg/L	0.010						
Chromium		0.0003	mg/L	3E-05						
Cobalt		4E-05	mg/L	3E-05						
Copper		0.0006	mg/L	6E-05						
Iron		0.01	mg/L	0.0006						
Lead		ND	mg/L	3E-05						
Magnesium		0.1	mg/L	0.0003						
Manganese		0.0002	mg/L	4E-05						
Molybdenum		0.0002	mg/L	3E-05						
Nickel		0.001	mg/L	3E-05						
Potassium		0.04	mg/L	0.008						
Selenium		ND	mg/L	0.0002						
Silver		4E-05	mg/L	3E-05						

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.8**									Batch: R109773	
Lab ID:	**MB-30618**	23	Method Blank				Run: ICPMS204-B_150928B			09/28/15 15:53	
Sodium			1	mg/L	0.008						
Uranium			0.0005	mg/L	1.0E-05						
Vanadium			ND	mg/L	3E-05						
Zinc			0.003	mg/L	0.0001						
Lab ID:	**H15090363-012AMS**	23	Sample Matrix Sp ke				Run: ICPMS204-B_150928B			09/28/15 16:12	
Aluminum			0.0486	mg/L	0.030	93	70	130			
Antimony			0.0501	mg/L	0.0010	99	70	130			
Arsenic			0.0519	mg/L	0.0010	101	70	130			
Barium			0.0722	mg/L	0.050	98	70	130			
Beryllium			0.0493	mg/L	0.0010	99	70	130			
Cadmium			0.0486	mg/L	0.0010	97	70	130			
Calcium			114	mg/L	1.0		70	130			A
Chromium			0.0492	mg/L	0.0050	97	70	130			
Cobalt			0.0489	mg/L	0.0050	98	70	130			
Copper			0.0486	mg/L	0.0050	96	70	130			
Iron			0.153	mg/L	0.020	99	70	130			
Lead			0.0500	mg/L	0.0010	100	70	130			
Magnesium			22.7	mg/L	1.0		70	130			A
Manganese			0.0496	mg/L	0.0010	98	70	130			
Molybdenum			0.0614	mg/L	0.0010	104	70	130			
Nickel			0.0485	mg/L	0.0050	96	70	130			
Potassium			7.85	mg/L	1.0		70	130			A
Selenium			0.0516	mg/L	0.0010	103	70	130			
Silver			0.0186	mg/L	0.0010	93	70	130			
Sodium			144	mg/L	1.0		70	130			A
Uranium			0.152	mg/L	0.00030	100	70	130			
Vanadium			0.0493	mg/L	0.010	97	70	130			
Zinc			0.0502	mg/L	0.010	96	70	130			
Lab ID:	**H15090363-012AMSD**	23	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150928B			09/28/15 16:15	
Aluminum			0.0488	mg/L	0.030	93	70	130	0.3	20	
Antimony			0.0504	mg/L	0.0010	100	70	130	0.6	20	
Arsenic			0.0511	mg/L	0.0010	99	70	130	1.5	20	
Barium			0.0726	mg/L	0.050	99	70	130	0.5	20	
Beryllium			0.0488	mg/L	0.0010	98	70	130	1.0	20	
Cadmium			0.0480	mg/L	0.0010	96	70	130	1.2	20	
Calcium			114	mg/L	1.0		70	130	0.4	20	A
Chromium			0.0485	mg/L	0.0050	96	70	130	1.3	20	
Cobalt			0.0480	mg/L	0.0050	96	70	130	2.0	20	
Copper			0.0480	mg/L	0.0050	95	70	130	1.2	20	
Iron			0.152	mg/L	0.020	98	70	130	0.9	20	
Lead			0.0491	mg/L	0.0010	98	70	130	1.8	20	
Magnesium			22.7	mg/L	1.0		70	130	0.1	20	A

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the sp ke level. In accordance with the method % recovery is not calculated.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R109773	
Lab ID: H15090363-012AMSD	23	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150928B			09/28/15 16:15	
Manganese		0.0492	mg/L	0.0010	97	70	130	1.0	20	
Molybdenum		0.0606	mg/L	0.0010	102	70	130	1.2	20	
Nickel		0.0478	mg/L	0.0050	94	70	130	1.4	20	
Potassium		7.72	mg/L	1.0		70	130	1.6	20	A
Selenium		0.0513	mg/L	0.0010	102	70	130	0.7	20	
Silver		0.0189	mg/L	0.0010	94	70	130	1.6	20	
Sodium		145	mg/L	1.0		70	130	0.1	20	A
Uranium		0.151	mg/L	0.00030	99	70	130	0.6	20	
Vanadium		0.0487	mg/L	0.010	96	70	130	1.3	20	
Zinc		0.0481	mg/L	0.010	91	70	130	4.3	20	
Lab ID: MB-30615	23	Method Blank				Run: ICPMS204-B_150928B			09/28/15 17:22	
Aluminum		0.001	mg/L	0.0008						
Antimony		ND	mg/L	4E-05						
Arsenic		ND	mg/L	6E-05						
Barium		ND	mg/L	8E-05						
Beryllium		ND	mg/L	0.0002						
Cadmium		ND	mg/L	2E-05						
Calcium		0.08	mg/L	0.010						
Chromium		4E-05	mg/L	3E-05						
Cobalt		ND	mg/L	3E-05						
Copper		0.0002	mg/L	6E-05						
Iron		0.004	mg/L	0.0006						
Lead		ND	mg/L	3E-05						
Magnesium		0.005	mg/L	0.0003						
Manganese		0.0007	mg/L	4E-05						
Molybdenum		6E-05	mg/L	3E-05						
Nickel		7E-05	mg/L	3E-05						
Potassium		ND	mg/L	0.008						
Selenium		0.0005	mg/L	0.0002						
Silver		ND	mg/L	3E-05						
Sodium		0.06	mg/L	0.008						
Uranium		ND	mg/L	1.0E-05						
Vanadium		ND	mg/L	3E-05						
Zinc		0.004	mg/L	0.0001						
Lab ID: H15090363-025AMS	23	Sample Matrix Sp ke				Run: ICPMS204-B_150928B			09/28/15 17:29	
Aluminum		0.0501	mg/L	0.030	98	70	130			
Antimony		0.0505	mg/L	0.0010	101	70	130			
Arsenic		0.0836	mg/L	0.0010	99	70	130			
Barium		0.0849	mg/L	0.050	102	70	130			
Beryllium		0.0482	mg/L	0.0010	96	70	130			
Cadmium		0.0484	mg/L	0.0010	97	70	130			
Calcium		39.5	mg/L	1.0		70	130			A

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R109773	
Lab ID: H15090363-025AMS	23	Sample Matrix Sp ke				Run: ICPMS204-B_150928B			09/28/15 17:29	
Chromium		0.0483	mg/L	0.0050	96	70	130			
Cobalt		0.0482	mg/L	0.0050	96	70	130			
Copper		0.0479	mg/L	0.0050	95	70	130			
Iron		0.151	mg/L	0.020	98	70	130			
Lead		0.0497	mg/L	0.0010	99	70	130			
Magnesium		9.54	mg/L	1.0		70	130			A
Manganese		0.0521	mg/L	0.0010	99	70	130			
Molybdenum		0.0993	mg/L	0.0010	103	70	130			
Nickel		0.0526	mg/L	0.0050	95	70	130			
Potassium		6.32	mg/L	1.0		70	130			A
Selenium		0.0534	mg/L	0.0010	106	70	130			
Silver		0.0185	mg/L	0.0010	92	70	130			
Sodium		232	mg/L	1.0		70	130			A
Uranium		0.0527	mg/L	0.00030	100	70	130			
Vanadium		0.0488	mg/L	0.010	95	70	130			
Zinc		0.0515	mg/L	0.010	98	70	130			
Lab ID: H15090363-025AMSD	23	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150928B			09/28/15 17:32	
Aluminum		0.0507	mg/L	0.030	99	70	130	1.2	20	
Antimony		0.0512	mg/L	0.0010	102	70	130	1.4	20	
Arsenic		0.0839	mg/L	0.0010	99	70	130	0.3	20	
Barium		0.0839	mg/L	0.050	100	70	130	1.2	20	
Beryllium		0.0484	mg/L	0.0010	97	70	130	0.3	20	
Cadmium		0.0487	mg/L	0.0010	97	70	130	0.7	20	
Calcium		40.1	mg/L	1.0		70	130	1.4	20	A
Chromium		0.0479	mg/L	0.0050	96	70	130	0.8	20	
Cobalt		0.0479	mg/L	0.0050	96	70	130	0.6	20	
Copper		0.0482	mg/L	0.0050	95	70	130	0.7	20	
Iron		0.152	mg/L	0.020	99	70	130	0.2	20	
Lead		0.0497	mg/L	0.0010	99	70	130	0.0	20	
Magnesium		9.59	mg/L	1.0		70	130	0.5	20	A
Manganese		0.0525	mg/L	0.0010	99	70	130	0.7	20	
Molybdenum		0.100	mg/L	0.0010	105	70	130	0.7	20	
Nickel		0.0527	mg/L	0.0050	95	70	130	0.1	20	
Potassium		6.40	mg/L	1.0		70	130	1.4	20	A
Selenium		0.0530	mg/L	0.0010	105	70	130	0.7	20	
Silver		0.0192	mg/L	0.0010	96	70	130	3.5	20	
Sodium		232	mg/L	1.0		70	130	0.1	20	A
Uranium		0.0530	mg/L	0.00030	100	70	130	0.6	20	
Vanadium		0.0488	mg/L	0.010	95	70	130	0.0	20	
Zinc		0.0508	mg/L	0.010	97	70	130	1.5	20	
Lab ID: H15090363-032AMS	23	Sample Matrix Sp ke				Run: ICPMS204-B_150928B			09/28/15 18:16	
Aluminum		0.0615	mg/L	0.030	96	70	130			

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R109773	
Lab ID: H15090363-032AMS	23	Sample Matrix Sp ke				Run: ICPMS204-B_150928B			09/28/15 18:16	
Antimony		0.0497	mg/L	0.0010	99	70	130			
Arsenic		0.0502	mg/L	0.0010	97	70	130			
Barium		0.0872	mg/L	0.050	99	70	130			
Beryllium		0.0503	mg/L	0.0010	100	70	130			
Cadmium		0.0504	mg/L	0.0010	100	70	130			
Calcium		36.4	mg/L	1.0		70	130			A
Chromium		0.0477	mg/L	0.0050	95	70	130			
Cobalt		0.0483	mg/L	0.0050	96	70	130			
Copper		0.0494	mg/L	0.0050	98	70	130			
Iron		0.153	mg/L	0.020	98	70	130			
Lead		0.0495	mg/L	0.0010	99	70	130			
Magnesium		8.81	mg/L	1.0		70	130			A
Manganese		0.379	mg/L	0.0010		70	130			A
Molybdenum		0.0494	mg/L	0.0010	99	70	130			
Nickel		0.0527	mg/L	0.0050	96	70	130			
Potassium		6.45	mg/L	1.0		70	130			A
Selenium		0.0526	mg/L	0.0010	104	70	130			
Silver		0.0195	mg/L	0.0010	98	70	130			
Sodium		25.9	mg/L	1.0		70	130			A
Uranium		0.0480	mg/L	0.00030	96	70	130			
Vanadium		0.0479	mg/L	0.010	92	70	130			
Zinc		0.0594	mg/L	0.010	100	70	130			
Lab ID: H15090363-032AMSD	23	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150928B			09/28/15 18:20	
Aluminum		0.0618	mg/L	0.030	97	70	130	0.5	20	
Antimony		0.0507	mg/L	0.0010	101	70	130	2.1	20	
Arsenic		0.0504	mg/L	0.0010	98	70	130	0.5	20	
Barium		0.0883	mg/L	0.050	101	70	130	1.2	20	
Beryllium		0.0497	mg/L	0.0010	99	70	130	1.2	20	
Cadmium		0.0504	mg/L	0.0010	100	70	130	0.0	20	
Calcium		36.4	mg/L	1.0		70	130	0.0	20	A
Chromium		0.0480	mg/L	0.0050	96	70	130	0.5	20	
Cobalt		0.0485	mg/L	0.0050	97	70	130	0.4	20	
Copper		0.0493	mg/L	0.0050	97	70	130	0.3	20	
Iron		0.154	mg/L	0.020	99	70	130	0.3	20	
Lead		0.0497	mg/L	0.0010	99	70	130	0.4	20	
Magnesium		8.80	mg/L	1.0		70	130	0.2	20	A
Manganese		0.377	mg/L	0.0010		70	130	0.5	20	A
Molybdenum		0.0501	mg/L	0.0010	100	70	130	1.5	20	
Nickel		0.0531	mg/L	0.0050	97	70	130	0.8	20	
Potassium		6.57	mg/L	1.0		70	130	1.9	20	A
Selenium		0.0518	mg/L	0.0010	102	70	130	1.5	20	
Silver		0.0199	mg/L	0.0010	99	70	130	1.6	20	
Sodium		25.6	mg/L	1.0		70	130	1.0	20	A

Qualifiers:

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ND - Not detected at the reporting limit.

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R109773
Lab ID: H15090363-032AMSD	23	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150928B			09/28/15 18:20	
Uranium		0.0482	mg/L	0.00030	96	70	130	0.3	20	
Vanadium		0.0482	mg/L	0.010	93	70	130	0.6	20	
Zinc		0.0582	mg/L	0.010	98	70	130	2.1	20	
Lab ID: H15090363-042AMS	23	Sample Matrix Sp ke				Run: ICPMS204-B_150928B			09/28/15 19:08	
Aluminum		0.0512	mg/L	0.030	99	70	130			
Antimony		0.0494	mg/L	0.0010	99	70	130			
Arsenic		0.0490	mg/L	0.0010	98	70	130			
Barium		0.0495	mg/L	0.050	99	70	130			
Beryllium		0.0493	mg/L	0.0010	99	70	130			
Cadmium		0.0503	mg/L	0.0010	101	70	130			
Calcium		1.13	mg/L	1.0	104	70	130			
Chromium		0.0498	mg/L	0.0050	99	70	130			
Cobalt		0.0497	mg/L	0.0050	99	70	130			
Copper		0.0502	mg/L	0.0050	99	70	130			
Iron		0.159	mg/L	0.020	103	70	130			
Lead		0.0490	mg/L	0.0010	98	70	130			
Magnesium		1.03	mg/L	1.0	102	70	130			
Manganese		0.0525	mg/L	0.0010	103	70	130			
Molybdenum		0.0499	mg/L	0.0010	100	70	130			
Nickel		0.0504	mg/L	0.0050	100	70	130			
Potassium		1.00	mg/L	1.0	99	70	130			
Selenium		0.0521	mg/L	0.0010	103	70	130			
Silver		0.0203	mg/L	0.0010	101	70	130			
Sodium		1.07	mg/L	1.0	101	70	130			
Uranium		0.0464	mg/L	0.00030	93	70	130			
Vanadium		0.0475	mg/L	0.010	95	70	130			
Zinc		0.0558	mg/L	0.010	103	70	130			
Lab ID: H15090363-042AMSD	23	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150928B			09/28/15 19:11	
Aluminum		0.0493	mg/L	0.030	95	70	130	3.8	20	
Antimony		0.0497	mg/L	0.0010	99	70	130	0.6	20	
Arsenic		0.0479	mg/L	0.0010	96	70	130	2.3	20	
Barium		0.0497	mg/L	0.050	99	70	130		20	
Beryllium		0.0489	mg/L	0.0010	98	70	130	0.8	20	
Cadmium		0.0500	mg/L	0.0010	100	70	130	0.6	20	
Calcium		1.12	mg/L	1.0	102	70	130	1.7	20	
Chromium		0.0489	mg/L	0.0050	98	70	130	1.8	20	
Cobalt		0.0492	mg/L	0.0050	98	70	130	1.0	20	
Copper		0.0497	mg/L	0.0050	98	70	130	1.0	20	
Iron		0.155	mg/L	0.020	101	70	130	2.2	20	
Lead		0.0488	mg/L	0.0010	98	70	130	0.5	20	
Magnesium		1.00	mg/L	1.0	99	70	130	2.8	20	
Manganese		0.0507	mg/L	0.0010	99	70	130	3.5	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R109773	
Lab ID: H15090363-042AMSD	23	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150928B			09/28/15 19:11	
Molybdenum		0.0488	mg/L	0.0010	98	70	130	2.4	20	
Nickel		0.0494	mg/L	0.0050	98	70	130	2.0	20	
Potassium		0.982	mg/L	1.0	97	70	130		20	
Selenium		0.0514	mg/L	0.0010	102	70	130	1.3	20	
Silver		0.0200	mg/L	0.0010	100	70	130	1.4	20	
Sodium		1.04	mg/L	1.0	98	70	130	3.3	20	
Uranium		0.0460	mg/L	0.00030	92	70	130	1.0	20	
Vanadium		0.0464	mg/L	0.010	93	70	130	2.3	20	
Zinc		0.0539	mg/L	0.010	100	70	130	3.5	20	
Lab ID: H15090324-002BMS	23	Sample Matrix Sp ke				Run: ICPMS204-B_150928B			09/28/15 19:47	
Aluminum		0.0498	mg/L	0.030	97	70	130			
Antimony		0.0490	mg/L	0.0010	98	70	130			
Arsenic		0.0512	mg/L	0.0010	102	70	130			
Barium		0.170	mg/L	0.050	98	70	130			
Beryllium		0.0497	mg/L	0.0010	99	70	130			
Cadmium		0.0501	mg/L	0.0010	100	70	130			
Calcium		63.0	mg/L	1.0		70	130			A
Chromium		0.0484	mg/L	0.0050	97	70	130			
Cobalt		0.0478	mg/L	0.0050	96	70	130			
Copper		0.0481	mg/L	0.0050	96	70	130			
Iron		0.148	mg/L	0.020	97	70	130			
Lead		0.0490	mg/L	0.0010	98	70	130			
Magnesium		21.6	mg/L	1.0		70	130			A
Manganese		0.0499	mg/L	0.0010	98	70	130			
Molybdenum		0.0497	mg/L	0.0010	99	70	130			
Nickel		0.0483	mg/L	0.0050	96	70	130			
Potassium		2.38	mg/L	1.0	95	70	130			
Selenium		0.0571	mg/L	0.0010	113	70	130			
Silver		0.0192	mg/L	0.0010	96	70	130			
Sodium		3.61	mg/L	1.0	100	70	130			
Uranium		0.0466	mg/L	0.00030	92	70	130			
Vanadium		0.0473	mg/L	0.010	94	70	130			
Zinc		0.0522	mg/L	0.010	102	70	130			
Lab ID: H15090324-002BMSD	23	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150928B			09/28/15 19:50	
Aluminum		0.0484	mg/L	0.030	94	70	130	2.9	20	
Antimony		0.0500	mg/L	0.0010	100	70	130	2.1	20	
Arsenic		0.0515	mg/L	0.0010	103	70	130	0.7	20	
Barium		0.170	mg/L	0.050	97	70	130	0.4	20	
Beryllium		0.0492	mg/L	0.0010	98	70	130	1.0	20	
Cadmium		0.0500	mg/L	0.0010	100	70	130	0.3	20	
Calcium		62.1	mg/L	1.0		70	130	1.3	20	A
Chromium		0.0484	mg/L	0.0050	97	70	130	0.0	20	

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8									Batch: R109773	
Lab ID: H15090324-002BMSD	23	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150928B			09/28/15 19:50	
Cobalt		0.0473	mg/L	0.0050	95	70	130	1.1	20	
Copper		0.0476	mg/L	0.0050	95	70	130	1.0	20	
Iron		0.149	mg/L	0.020	98	70	130	0.9	20	
Lead		0.0483	mg/L	0.0010	97	70	130	1.5	20	
Magnesium		21.4	mg/L	1.0		70	130	1.1	20	A
Manganese		0.0498	mg/L	0.0010	98	70	130	0.1	20	
Molybdenum		0.0500	mg/L	0.0010	99	70	130	0.7	20	
Nickel		0.0478	mg/L	0.0050	95	70	130	1.0	20	
Potassium		2.37	mg/L	1.0	94	70	130	0.5	20	
Selenium		0.0568	mg/L	0.0010	112	70	130	0.4	20	
Silver		0.0194	mg/L	0.0010	97	70	130	1.0	20	
Sodium		3.59	mg/L	1.0	99	70	130	0.5	20	
Uranium		0.0463	mg/L	0.00030	91	70	130	0.7	20	
Vanadium		0.0471	mg/L	0.010	94	70	130	0.3	20	
Zinc		0.0512	mg/L	0.010	100	70	130	1.8	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the sp ke level. In accordance with the method % recovery is not calculated.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_150929A		
Lab ID: ICV STD	7	Initial Calibration Verification Standard								09/29/15 12:37
Aluminum		0.308	mg/L	0.10	103	90	110			
Antimony		0.0606	mg/L	0.050	101	90	110			
Cadmium		0.0312	mg/L	0.0010	104	90	110			
Iron		0.316	mg/L	0.020	105	90	110			
Manganese		0.302	mg/L	0.010	101	90	110			
Uranium		0.0573	mg/L	0.0010	95	90	110			
Zinc		0.0619	mg/L	0.010	103	90	110			
Lab ID: ICSA	7	Interference Check Sample A								09/29/15 12:41
Aluminum		38.6	mg/L	0.10	97	70	130			
Antimony		0.000472	mg/L	0.050						
Cadmium		0.000378	mg/L	0.0010						
Iron		99.0	mg/L	0.020	99	70	130			
Manganese		0.000319	mg/L	0.010						
Uranium		0.000123	mg/L	0.0010						
Zinc		0.00115	mg/L	0.010						
Lab ID: ICSAB	7	Interference Check Sample AB								09/29/15 12:44
Aluminum		38.6	mg/L	0.10	97	70	130			
Antimony		0.000203	mg/L	0.050		0	0			
Cadmium		0.0110	mg/L	0.0010	110	70	130			
Iron		99.3	mg/L	0.020	99	70	130			
Manganese		0.0225	mg/L	0.010	113	70	130			
Uranium		3.00E-05	mg/L	0.0010		0	0			
Zinc		0.0116	mg/L	0.010	116	70	130			
Method: E200.8										Batch: R109803
Lab ID: ICB	7	Method Blank				Run: ICPMS204-B_150929A				09/29/15 13:19
Aluminum		0.002	mg/L	0.0008						
Antimony		0.0001	mg/L	4E-05						
Cadmium		ND	mg/L	2E-05						
Iron		ND	mg/L	0.0006						
Manganese		ND	mg/L	4E-05						
Uranium		0.0001	mg/L	1.0E-05						
Zinc		0.001	mg/L	0.0001						
Lab ID: LFB	7	Laboratory Fortified Blank				Run: ICPMS204-B_150929A				09/29/15 13:22
Aluminum		0.0480	mg/L	0.10	93	85	115			
Antimony		0.0474	mg/L	0.050	95	85	115			
Cadmium		0.0483	mg/L	0.0010	97	85	115			
Iron		0.146	mg/L	0.020	98	85	115			
Manganese		0.0486	mg/L	0.010	97	85	115			
Uranium		0.0439	mg/L	0.0010	88	85	115			
Zinc		0.0516	mg/L	0.010	101	85	115			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R109803
Lab ID: H15090324-008BMS	7	Sample Matrix Sp ke				Run: ICPMS204-B_150929A			09/29/15 16:37	
Aluminum		0.0481	mg/L	0.030	94	70	130			
Antimony		0.0468	mg/L	0.0010	94	70	130			
Cadmium		0.0495	mg/L	0.0010	99	70	130			
Iron		0.140	mg/L	0.020	93	70	130			
Manganese		0.0481	mg/L	0.0010	96	70	130			
Uranium		0.0420	mg/L	0.00030	84	70	130			
Zinc		0.0527	mg/L	0.010	104	70	130			
Lab ID: H15090324-008BMSD	7	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150929A			09/29/15 16:40	
Aluminum		0.0508	mg/L	0.030	100	70	130	5.5	20	
Antimony		0.0493	mg/L	0.0010	99	70	130	5.0	20	
Cadmium		0.0517	mg/L	0.0010	103	70	130	4.4	20	
Iron		0.148	mg/L	0.020	99	70	130	6.0	20	
Manganese		0.0501	mg/L	0.0010	100	70	130	4.1	20	
Uranium		0.0446	mg/L	0.00030	89	70	130	5.8	20	
Zinc		0.0555	mg/L	0.010	109	70	130	5.1	20	
Lab ID: H15090363-026AMS	7	Sample Matrix Sp ke				Run: ICPMS204-B_150929A			09/29/15 18:44	
Aluminum		0.0507	mg/L	0.030	93	70	130			
Antimony		0.0486	mg/L	0.0010	97	70	130			
Cadmium		0.0479	mg/L	0.0010	96	70	130			
Iron		0.144	mg/L	0.020	95	70	130			
Manganese		0.0482	mg/L	0.0010	95	70	130			
Uranium		0.0500	mg/L	0.00030	94	70	130			
Zinc		0.0506	mg/L	0.010	93	70	130			
Lab ID: H15090363-026AMSD	7	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150929A			09/29/15 18:48	
Aluminum		0.0521	mg/L	0.030	96	70	130	2.7	20	
Antimony		0.0493	mg/L	0.0010	98	70	130	1.5	20	
Cadmium		0.0477	mg/L	0.0010	95	70	130	0.4	20	
Iron		0.143	mg/L	0.020	95	70	130	0.7	20	
Manganese		0.0478	mg/L	0.0010	94	70	130	0.7	20	
Uranium		0.0502	mg/L	0.00030	95	70	130	0.3	20	
Zinc		0.0520	mg/L	0.010	96	70	130	2.8	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.8**							Analytical Run: ICPMS204-B_150930A			
Lab ID:	**ICV STD**		Initial Calibration Verification Standard							09/30/15 12:07	
Boron			0.0618	mg/L	0.10	103	90	110			
Lab ID:	**ICSA**		Interference Check Sample A							09/30/15 12:10	
Boron			0.00429	mg/L	0.10						
Lab ID:	**ICSAB**		Interference Check Sample AB							09/30/15 12:14	
Boron			0.00318	mg/L	0.10		0	0			
Method:	**E200.8**									Batch: R109815	
Lab ID:	**ICB**		Method Blank				Run: ICPMS204-B_150930A			09/30/15 12:49	
Boron			ND	mg/L	0.0009						
Lab ID:	**LFB**		Laboratory Fortified Blank				Run: ICPMS204-B_150930A			09/30/15 12:52	
Boron			0.0478	mg/L	0.10	96	85	115			
Lab ID:	**MB-30637**		Method Blank				Run: ICPMS204-B_150930A			09/30/15 13:02	
Boron			ND	mg/L	0.0009						
Lab ID:	**H15090437-001BMS**		Sample Matrix Sp ke				Run: ICPMS204-B_150930A			09/30/15 13:59	
Boron			1.54	mg/L	0.050		70	130			A
Lab ID:	**H15090437-001BMSD**		Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_150930A			09/30/15 14:02	
Boron			1.55	mg/L	0.050		70	130	0.3	20	A

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.8**							Analytical Run: ICPMS204-B_151002A			
Lab ID:	**ICV STD**		Initial Calibration Verification Standard							10/02/15 11:38	
Aluminum			0.295	mg/L	0.10	98	90	110			
Lab ID:	**ICSA**		Interference Check Sample A							10/02/15 11:41	
Aluminum			37.2	mg/L	0.10	93	70	130			
Lab ID:	**ICSAB**		Interference Check Sample AB							10/02/15 11:44	
Aluminum			37.1	mg/L	0.10	93	70	130			
Method:	**E200.8**									Batch: R109886	
Lab ID:	**ICB**		Method Blank				Run: ICPMS204-B_151002A			10/02/15 12:25	
Aluminum			ND	mg/L	0.0008						
Lab ID:	**LFB**		Laboratory Fortified Blank				Run: ICPMS204-B_151002A			10/02/15 12:28	
Aluminum			0.0479	mg/L	0.10	96	85	115			
Lab ID:	**MB-30739**		Method Blank				Run: ICPMS204-B_151002A			10/02/15 12:34	
Aluminum			0.001	mg/L	0.0008						
Lab ID:	**H15090438-001CMS**		Sample Matrix Sp ke				Run: ICPMS204-B_151002A			10/02/15 12:47	
Aluminum			0.736	mg/L	0.030		70	130			A
Lab ID:	**H15090438-001CMSD**		Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_151002A			10/02/15 12:51	
Aluminum			0.737	mg/L	0.030		70	130	0.1	20	A

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.8**								Analytical Run: ICPMS204-B_151014D		
Lab ID:	**ICV STD**		Initial Calibration Verification Standard							10/14/15 16:16	
Cadmium			0.0304	mg/L	0.0010	102	90	110			
Lab ID:	**ICSA**		Interference Check Sample A							10/14/15 16:23	
Cadmium			0.000508	mg/L	0.0010						
Lab ID:	**ICSAB**		Interference Check Sample AB							10/14/15 16:26	
Cadmium			0.0113	mg/L	0.0010	113	70	130			
Lab ID:	**ICV STD**		Initial Calibration Verification Standard							10/15/15 13:47	
Cadmium			0.0302	mg/L	0.0010	101	90	110			
Lab ID:	**ICSA**		Interference Check Sample A							10/15/15 13:53	
Cadmium			0.000496	mg/L	0.0010						
Lab ID:	**ICSAB**		Interference Check Sample AB							10/15/15 13:57	
Cadmium			0.0109	mg/L	0.0010	109	70	130			
Method:	**E200.8**										Batch: R110201
Lab ID:	**ICB**		Method Blank				Run: ICPMS204-B_151014D			10/14/15 16:45	
Cadmium			ND	mg/L	2E-05						
Lab ID:	**LFB**		Laboratory Fortified Blank				Run: ICPMS204-B_151014D			10/14/15 16:49	
Cadmium			0.0484	mg/L	0.0010	97	85	115			
Lab ID:	**H15100218-005EMS**		Sample Matrix Sp ke				Run: ICPMS204-B_151014D			10/15/15 15:07	
Cadmium			0.0493	mg/L	0.0010	98	70	130			
Lab ID:	**H15100218-005EMSD**		Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_151014D			10/15/15 15:10	
Cadmium			0.0494	mg/L	0.0010	98	70	130	0.1	20	

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E245.1**									Analytical Run: SUB-B250720	
Lab ID:	**ICV**		Initial Calibration Verification Standard							10/09/15 13:20	
Mercury			0.000202	mg/L	1.0E-05	101	90	110			
Method:	**E245.1**									Batch: B_93834	
Lab ID:	**MB-93834**		Method Blank				Run: SUB-B250720			10/09/15 14:51	
Mercury			ND	mg/L	1E-06						
Lab ID:	**H15090363-043A**		Sample Matrix Sp ke				Run: SUB-B250720			10/09/15 16:08	
Mercury			0.000226	mg/L	1.0E-05	113	70	130			
Lab ID:	**H15090363-043A**		Sample Matrix Sp ke Duplicate				Run: SUB-B250720			10/09/15 16:10	
Mercury			0.000178	mg/L	1.0E-05	89	70	130	24	30	
Lab ID:	**H15090363-046A**		Sample Matrix Sp ke				Run: SUB-B250720			10/09/15 16:20	
Mercury			0.000217	mg/L	1.0E-05	108	70	130			
Lab ID:	**H15090363-046A**		Sample Matrix Sp ke Duplicate				Run: SUB-B250720			10/09/15 16:23	
Mercury			0.000213	mg/L	1.0E-05	107	70	130	1.9	30	
Method:	**E245.1**									Batch: B_93835	
Lab ID:	**MB-93819**		Method Blank				Run: SUB-B250720			10/09/15 14:58	
Mercury			ND	mg/L	1E-06						
Method:	**E245.1**									Analytical Run: SUB-B250792	
Lab ID:	**ICV**		Initial Calibration Verification Standard							10/12/15 14:26	
Mercury			0.000199	mg/L	1.0E-05	100	90	110			
Method:	**E245.1**									Batch: B_93835	
Lab ID:	**MB-93835**		Method Blank				Run: SUB-B250792			10/12/15 14:38	
Mercury			ND	mg/L	1E-06						
Lab ID:	**LCS-93835**		Laboratory Control Sample				Run: SUB-B250792			10/12/15 14:40	
Mercury			0.000204	mg/L	1.0E-05	102	85	115			
Lab ID:	**B15100471-003BMS**		Sample Matrix Sp ke				Run: SUB-B250792			10/12/15 15:04	
Mercury			0.000205	mg/L	1.0E-05	97	70	130			
Lab ID:	**B15100471-003BMSD**		Sample Matrix Sp ke Duplicate				Run: SUB-B250792			10/12/15 15:06	
Mercury			0.000212	mg/L	1.0E-05	101	70	130	3.4	30	
Lab ID:	**H15090363-018A**		Sample Matrix Sp ke				Run: SUB-B250792			10/12/15 15:35	
Mercury			0.000203	mg/L	1.0E-05	102	70	130			
Lab ID:	**H15090363-018A**		Sample Matrix Sp ke Duplicate				Run: SUB-B250792			10/12/15 15:37	
Mercury			0.000208	mg/L	1.0E-05	104	70	130	2.4	30	

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E245.1**									Analytical Run: SUB-B250861	
Lab ID:	**ICV**		Initial Calibration Verification Standard							10/13/15 13:58	
Mercury			0.000205	mg/L	1.0E-05	103	90	110			
Method:	**E245.1**									Batch: B_93889	
Lab ID:	**MB-93889**		Method Blank				Run: SUB-B250861			10/13/15 14:24	
Mercury			ND	mg/L	1E-06						
Lab ID:	**LCS-93889**		Laboratory Control Sample				Run: SUB-B250861			10/13/15 14:26	
Mercury			0.000205	mg/L	1.0E-05	103	85	115			
Lab ID:	**B15100424-001CMS**		Sample Matrix Sp ke				Run: SUB-B250861			10/13/15 14:31	
Mercury			0.000205	mg/L	1.0E-05	102	70	130			
Lab ID:	**B15100424-001CMSD**		Sample Matrix Sp ke Duplicate				Run: SUB-B250861			10/13/15 14:34	
Mercury			0.000204	mg/L	1.0E-05	101	70	130	0.5	30	
Lab ID:	**B15100798-004CMS**		Sample Matrix Sp ke				Run: SUB-B250861			10/13/15 15:20	
Mercury			0.000205	mg/L	1.0E-05	103	70	130			
Lab ID:	**B15100798-004CMSD**		Sample Matrix Sp ke Duplicate				Run: SUB-B250861			10/13/15 15:23	
Mercury			0.000206	mg/L	1.0E-05	103	70	130	0.5	30	
Method:	**E245.1**									Batch: B_93945	
Lab ID:	**MB-93945**		Method Blank				Run: SUB-B250861			10/13/15 15:48	
Mercury			ND	mg/L	1E-06						
Lab ID:	**LCS-93945**		Laboratory Control Sample				Run: SUB-B250861			10/13/15 15:51	
Mercury			0.000202	mg/L	1.0E-05	101	85	115			
Lab ID:	**B15100209-002BMS**		Sample Matrix Sp ke				Run: SUB-B250861			10/13/15 15:56	
Mercury			0.000390	mg/L	1.0E-05	93	70	130			
Lab ID:	**B15100209-002BMSD**		Sample Matrix Sp ke Duplicate				Run: SUB-B250861			10/13/15 15:58	
Mercury			0.000402	mg/L	1.0E-05	96	70	130	3.0	30	
Lab ID:	**H15090363-019A**		Sample Matrix Sp ke				Run: SUB-B250861			10/13/15 16:14	
Mercury			0.000200	mg/L	1.0E-05	100	70	130			
Lab ID:	**H15090363-019A**		Sample Matrix Sp ke Duplicate				Run: SUB-B250861			10/13/15 16:16	
Mercury			0.000201	mg/L	1.0E-05	101	70	130	0.5	30	
Method:	**E245.1**									Batch: B_93947	
Lab ID:	**MB-93947**		Method Blank				Run: SUB-B250861			10/13/15 17:15	
Mercury			ND	mg/L	1E-06						
Lab ID:	**LCS-93947**		Laboratory Control Sample				Run: SUB-B250861			10/13/15 17:18	
Mercury			0.000201	mg/L	1.0E-05	101	85	115			
Lab ID:	**H15090363-036A**		Sample Matrix Sp ke				Run: SUB-B250861			10/13/15 17:31	
Mercury			0.000205	mg/L	1.0E-05	101	70	130			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E245.1**									Batch: B_93947	
Lab ID:	**H15090363-036A**	Sample Matrix Sp ke					Run: SUB-B250861			10/13/15 17:31	
Lab ID:	**H15090363-036A**	Sample Matrix Sp ke Duplicate					Run: SUB-B250861			10/13/15 17:33	
Mercury			0.000206	mg/L	1.0E-05	101	70	130	0.5	30	
Method:	**E245.1**									Analytical Run: SUB-B250952	
Lab ID:	**ICV**	Initial Calibration Verification Standard								10/14/15 16:24	
Mercury			0.000203	mg/L	1.0E-05	102	90	110			
Method:	**E245.1**									Batch: B_93996	
Lab ID:	**MB-93996**	Method Blank					Run: SUB-B250952			10/14/15 16:33	
Mercury			3E-06	mg/L	1E-06						
Lab ID:	**LCS-93996**	Laboratory Control Sample					Run: SUB-B250952			10/14/15 16:36	
Mercury			0.000203	mg/L	1.0E-05	100	85	115			
Lab ID:	**B15101046-006BMS**	Sample Matrix Sp ke					Run: SUB-B250952			10/14/15 17:11	
Mercury			0.00142	mg/L	2.5E-05		70	130			A
Lab ID:	**B15101046-006BMSD**	Sample Matrix Sp ke Duplicate					Run: SUB-B250952			10/14/15 17:13	
Mercury			0.00137	mg/L	2.5E-05		70	130	3.9	30	A

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the sp ke level. In accordance with the method % recovery is not calculated.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E300.0**									Analytical Run: IC102-H_150921A	
Lab ID:	**ICV**	2	Initial Calibration Verification Standard							09/21/15 11:37	
Chloride			105	mg/L	1.0	105	90	110			
Sulfate			404	mg/L	1.0	101	90	110			
Lab ID:	**CCV092115-3**	2	Continuing Calibration Verification Standard							09/21/15 18:28	
Chloride			104	mg/L	1.0	104	90	110			
Sulfate			411	mg/L	1.0	103	90	110			
Lab ID:	**CCV092115-4**	2	Continuing Calibration Verification Standard							09/21/15 21:15	
Chloride			102	mg/L	1.0	102	90	110			
Sulfate			408	mg/L	1.0	102	90	110			
Lab ID:	**CCV092115-5**	2	Continuing Calibration Verification Standard							09/21/15 23:51	
Chloride			103	mg/L	1.0	103	90	110			
Sulfate			404	mg/L	1.0	101	90	110			
Method:	**E300.0**									Batch: R109539	
Lab ID:	**ICB**	2	Method Blank				Run: IC102-H_150921A			09/21/15 11:26	
Chloride			0.02	mg/L	0.009						
Sulfate			ND	mg/L	0.02						
Lab ID:	**LFB**	2	Laboratory Fortified Blank				Run: IC102-H_150921A			09/21/15 11:48	
Chloride			49.3	mg/L	1.0	99	90	110			
Sulfate			199	mg/L	1.0	99	90	110			
Lab ID:	**H15090359-020DMS**	2	Sample Matrix Sp ke				Run: IC102-H_150921A			09/21/15 19:35	
Chloride			49.3	mg/L	1.0	99	90	110			
Sulfate			198	mg/L	1.0	99	90	110			
Lab ID:	**H15090359-020DMSD**	2	Sample Matrix Sp ke Duplicate				Run: IC102-H_150921A			09/21/15 19:46	
Chloride			48.7	mg/L	1.0	97	90	110	1.2	20	
Sulfate			197	mg/L	1.0	98	90	110	0.6	20	
Lab ID:	**H15090363-025BMS**	2	Sample Matrix Sp ke				Run: IC102-H_150921A			09/21/15 23:28	
Chloride			130	mg/L	1.0	105	90	110			
Sulfate			465	mg/L	1.0	104	90	110			
Lab ID:	**H15090363-025BMSD**	2	Sample Matrix Sp ke Duplicate				Run: IC102-H_150921A			09/21/15 23:39	
Chloride			129	mg/L	1.0	103	90	110	0.9	20	
Sulfate			473	mg/L	1.0	107	90	110	1.5	20	
Lab ID:	**H15090363-035BMS**	2	Sample Matrix Sp ke				Run: IC102-H_150921A			09/22/15 02:04	
Chloride			88.7	mg/L	1.0	107	90	110			
Sulfate			304	mg/L	1.0	107	90	110			
Lab ID:	**H15090363-035BMSD**	2	Sample Matrix Sp ke Duplicate				Run: IC102-H_150921A			09/22/15 02:15	
Chloride			88.6	mg/L	1.0	106	90	110	0.2	20	
Sulfate			299	mg/L	1.0	105	90	110	1.6	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E300.0**									Analytical Run: IC102-H_150922A	
Lab ID:	**ICV**	2	Initial Calibration Verification Standard							09/22/15 15:48	
Chloride			101	mg/L	1.0	101	90	110			
Sulfate			403	mg/L	1.0	101	90	110			
Lab ID:	**CCV092215-2**	2	Continuing Calibration Verification Standard							09/22/15 19:08	
Chloride			101	mg/L	1.0	101	90	110			
Sulfate			399	mg/L	1.0	100	90	110			
Lab ID:	**CCV092215-3**	2	Continuing Calibration Verification Standard							09/22/15 21:44	
Chloride			101	mg/L	1.0	101	90	110			
Sulfate			400	mg/L	1.0	100	90	110			
Lab ID:	**CCV092215-4**	2	Continuing Calibration Verification Standard							09/23/15 00:19	
Chloride			100.0	mg/L	1.0	100	90	110			
Sulfate			403	mg/L	1.0	101	90	110			
Method:	**E300.0**									Batch: R109573	
Lab ID:	**ICB**	2	Method Blank				Run: IC102-H_150922A			09/22/15 15:37	
Chloride			0.02	mg/L	0.009						
Sulfate			ND	mg/L	0.02						
Lab ID:	**LFB**	2	Laboratory Fortified Blank				Run: IC102-H_150922A			09/22/15 16:00	
Chloride			47.8	mg/L	1.0	95	90	110			
Sulfate			194	mg/L	1.0	97	90	110			
Lab ID:	**H15090324-009AMS**	2	Sample Matrix Sp ke				Run: IC102-H_150922A			09/22/15 19:42	
Chloride			49.6	mg/L	1.0	97	90	110			
Sulfate			423	mg/L	1.0	100	90	110			
Lab ID:	**H15090324-009AMSD**	2	Sample Matrix Sp ke Duplicate				Run: IC102-H_150922A			09/22/15 19:53	
Chloride			50.6	mg/L	1.0	99	90	110	2.0	20	
Sulfate			437	mg/L	1.0	106	90	110	3.2	20	
Lab ID:	**H15090385-001AMS**	2	Sample Matrix Sp ke				Run: IC102-H_150922A			09/22/15 23:57	
Chloride			50.2	mg/L	1.0	95	90	110			
Sulfate			281	mg/L	1.0	100	90	110			
Lab ID:	**H15090385-001AMSD**	2	Sample Matrix Sp ke Duplicate				Run: IC102-H_150922A			09/23/15 00:08	
Chloride			51.5	mg/L	1.0	98	90	110	2.5	20	
Sulfate			288	mg/L	1.0	103	90	110	2.4	20	
Lab ID:	**H15090412-005AMS**	2	Sample Matrix Sp ke				Run: IC102-H_150922A			09/23/15 02:22	
Chloride			47.4	mg/L	1.0	95	90	110			
Sulfate			195	mg/L	1.0	98	90	110			
Lab ID:	**H15090412-005AMSD**	2	Sample Matrix Sp ke Duplicate				Run: IC102-H_150922A			09/23/15 02:33	
Chloride			48.7	mg/L	1.0	97	90	110	2.8	20	
Sulfate			196	mg/L	1.0	98	90	110	0.5	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund **Report Date:** 10/15/15

Project: MT DEQ Q3 SSTOU Groundwater/Vadose Monitor **Work Order:** H15090363

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E300.0**									Analytical Run: IC102-H_150924A	
Lab ID:	**ICV**		Initial Calibration Verification Standard							09/24/15 11:26	
Sulfate			405	mg/L	1.0	101	90	110			
Lab ID:	**CCV092415-1**		Continuing Calibration Verification Standard							09/24/15 11:48	
Sulfate			408	mg/L	1.0	102	90	110			
Lab ID:	**CCV092415-3**		Continuing Calibration Verification Standard							09/24/15 17:10	
Sulfate			408	mg/L	1.0	102	90	110			
Method:	**E300.0**									Batch: R109649	
Lab ID:	**ICB**		Method Blank				Run: IC102-H_150924A			09/24/15 11:15	
Sulfate			ND	mg/L	0.02						
Lab ID:	**LFB**		Laboratory Fortified Blank				Run: IC102-H_150924A			09/24/15 11:37	
Sulfate			195	mg/L	1.0	98	90	110			
Lab ID:	**H15090430-001AMS**		Sample Matrix Sp ke				Run: IC102-H_150924A			09/24/15 12:44	
Sulfate			206	mg/L	1.0	102	90	110			
Lab ID:	**H15090430-001AMSD**		Sample Matrix Sp ke Duplicate				Run: IC102-H_150924A			09/24/15 12:55	
Sulfate			205	mg/L	1.0	102	90	110	0.3	20	
Lab ID:	**H15090363-019BMS**		Sample Matrix Sp ke				Run: IC102-H_150924A			09/24/15 18:06	
Sulfate			630	mg/L	1.0	103	90	110			
Lab ID:	**H15090363-019BMSD**		Sample Matrix Sp ke Duplicate				Run: IC102-H_150924A			09/24/15 18:17	
Sulfate			645	mg/L	1.0	106	90	110	2.3	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

Work Order Receipt Checklist

MT DEQ-Federal Superfund H15090363

Login completed by: Tracy L. Lorash
Date Received: 9/17/2015
Reviewed by: BL2000\rwilliams
Received by: jdh
Reviewed Date: 9/22/2015
Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☐	No ☑	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☑	No ☐	Not Applicable ☐
Container/Temp Blank temperature:	°C See comments		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	Not Applicable ☑
Water - pH acceptable upon receipt?	Yes ☐	No ☑	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

Limited Sample volume for samples LYS-01 through 08. Priority analysis is Dissolved Metals, Hardness, Sulfate/Chloride, Alkalinity.
Received LYS-08 bottle empty.
Collection time on COC for LYS-01 is 1424 – bottle has time of 1656. Logged in with time from bottle per Joe.
Collection time on COC for LYS-02 is 1436 – bottle has time of 1703. Logged in with time from bottle per Joe.
Collection time on COC for LYS-03 is 1412 – bottle has time of 1636. Logged in with time from bottle per Joe.
Collection time on COC for LYS-04 is 1305 – bottle has time of 1600. Logged in with time from bottle per Joe.
Collection time on COC for LYS-05 is 1317 – bottle has time of 1610. Logged in with time from bottle per Joe.
Collection time on COC for LYS-06 is 1420 – bottle has time of 1644. Logged in with time from bottle per Joe.
Collection time on COC for LYS-04 is 1429 – bottle has time of 1656. Logged in with time from bottle per Joe.
Collection time on COC for LYS-08 is 1405 – bottle has time of 1625. Logged in with time from bottle per Joe.
Sample ID on COC is (DUP)GW-FM-BG – ID on bottle is GW-FM-BG Field Dup. Logged in with ID from bottle per Joe.

Work Order Receipt Checklist - Continued

MT DEQ-Federal Superfund H15090363

Sample ID on COC is (DUP)GW-ST-WS– ID on bottle is GW-ST-WS Field Dup. Logged in with ID from bottle per Joe.

Sample ID on COC is (BLANK)P-58A – ID on bottle is P-58A Field Blank. Logged in with ID from bottle per Joe.
Sample ID on COC is (BLANK)GW-FR-WS – ID on bottle is GW-FR-WS Field Blank. Logged in with ID from bottle per Joe.
Sample ID on COC is (DUP)MW-2A – ID on bottle is MW-2A Field Blank. Logged in with ID of MW-2A Field Dup per Joe.
Sample ID on COC is (BLANK)LYP-07 – ID on bottle is LYP-07 Field Blank. Logged in with ID from bottle per Joe.
Cooler 1 was received at 0.5°C, Cooler 2 at 0.2°C, Cooler 3 at 0.2°C. Samples were received on wet ice.
Samples for Dissolved Metals/Hardness were subsampled, filtered, and preserved to pH <2 with 2 mL of Nitric acid per 250 mL in the laboratory. According to 40CFR136, samples for Dissolved Metals should be filtered and preserved within 15 minutes of collection. tl 9/18/15

APPENDIX B4

ANALYTICAL LABORATORY RESULTS
4TH QUARTER MONITORING

ANALYTICAL SUMMARY REPORT

December 23, 2015

Natural Resource Damage Program
1301 E Lockey
Helena, MT 59620-1425

Work Order: H15120092 Quote ID: H1088 - Silver Bow Monitoring

Project Name: Silver Bow Creek Monitoring

Energy Laboratories Inc Helena MT received the following 9 samples for Natural Resource Damage Program on 12/7/2015 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H15120092-001	SS-01	12/04/15 17:45	12/07/15	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Carbon, Dissolved Organic Conductivity Mercury, Dissolved Mercury, Total Recoverable Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Nitrogen, Total Persulfate Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Digestion, Total P Water Nitrogen, Total Persulfate Phosphorus, Total Solids, Total Suspended Solids, Suspended Volatile
H15120092-002	SS-05A	12/04/15 16:30	12/07/15	Aqueous	Same As Above
H15120092-003	SS-15G	12/03/15 13:15	12/07/15	Aqueous	Same As Above
H15120092-004	SS-01 Sediment Sieve <0.065mm	12/04/15 17:45	12/07/15	Sediment	Metals by ICP/ICPMS, Total Mercury in Solid By CVAA Percent Moisture Digestion, Total Metals Digestion, Mercury by CVAA Sieves Soil Preparation
H15120092-005	SS-01 Sediment Sieve 0.065-1mm	12/04/15 17:45	12/07/15	Sediment	Metals by ICP/ICPMS, Total Mercury in Solid By CVAA Percent Moisture Digestion, Total Metals Digestion, Mercury by CVAA Sieves
H15120092-006	SS-01 Sediment Sieve 1-2mm	12/04/15 17:45	12/07/15	Sediment	Same As Above
H15120092-007	SS-05A Sediment Sieve <0.065mm	12/04/15 16:00	12/07/15	Sediment	Same As Above
H15120092-008	SS-05A Sediment Sieve 0.065-1mm	12/04/15 16:00	12/07/15	Sediment	Same As Above
H15120092-009	SS-05A Sediment Sieve 1-2mm	12/04/15 16:00	12/07/15	Sediment	Same As Above

ANALYTICAL SUMMARY REPORT

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: Natural Resource Damage Program
Project: Silver Bow Creek Monitoring
Work Order: H15120092

Revised Date: 12/28/15
Report Date: 12/24/15

CASE NARRATIVE

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

Revised Report due to case narrative stating samples had been filtered in the laboratory. Samples were filtered in the field by client. All data remained the same except for the Case Narrative. wj 12/28/15

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01
Lab ID: H15120092-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 17:45
DateReceived: 12/07/15
Report Date: 12/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	9	mg/L		1		A2540 D	12/07/15 13:30 / SR		-124 (14410200)_151207A	3	TSS151207A
Solids, Volatile Suspended	2	mg/L		1		A2540 E	12/08/15 09:29 / SR		MISC WC_151208A	2	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	91	mg/L		4		A2320 B	12/08/15 09:25 / SR		PHSC_101-H_151208A	9	R111512
Bicarbonate as HCO3	110	mg/L		4		A2320 B	12/08/15 09:25 / SR		PHSC_101-H_151208A	9	R111512
Chloride	15	mg/L		1		E300.0	12/08/15 16:56 / SR		IC102-H_151208A	18	R111543
Sulfate	24	mg/L		1		E300.0	12/08/15 16:56 / SR		IC102-H_151208A	18	R111543
Hardness as CaCO3	107	mg/L		1		A2340 B	12/08/15 12:58 / abc		CALC_151209A	190	R111554
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	2.2	mg/L		0.5		A5310 C	12/11/15 20:36 / eli-c	12/11/15 11:39	SUB-C207393	3	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	12/09/15 14:03 / SR		FIA203-HE_151209B	12	R111563
Nitrogen, Nitrate+Nitrite as N	1.07	mg/L		0.02		E353.2	12/08/15 09:10 / cm		FIA203-HE_151208B	15	R111531
Nitrogen, Total	1.15	mg/L	D	0.06		A4500 N-C	12/09/15 10:46 / cm	12/08/15 10:36	FIA203-HE_151209A	13	31424
Phosphorus, Total as P	0.085	mg/L		0.003		E365.1	12/08/15 12:19 / cm	12/08/15 10:34	FIA202-HE_151208B	15	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/10/15 15:47 / dck		ICPMS204-B_151210A	42	R111621
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 15:47 / dck		ICPMS204-B_151210A	42	R111621
Arsenic	0.001	mg/L		0.001		E200.8	12/15/15 03:27 / dck		ICPMS204-B_151214B	22	R111723
Barium	0.051	mg/L		0.003		E200.8	12/10/15 15:47 / dck		ICPMS204-B_151210A	42	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/15/15 03:27 / dck		ICPMS204-B_151214B	22	R111723
Boron	ND	mg/L		0.1		E200.7	12/08/15 12:58 / sld		ICP2-HE_151208A	29	R111524
Cadmium	ND	mg/L		0.00003		E200.8	12/15/15 03:27 / dck		ICPMS204-B_151214B	22	R111723
Calcium	30	mg/L		1		E200.7	12/08/15 12:58 / sld		ICP2-HE_151208A	29	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 15:47 / dck		ICPMS204-B_151210A	42	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 15:47 / dck		ICPMS204-B_151210A	42	R111621
Copper	ND	mg/L		0.001		E200.8	12/16/15 23:53 / dck		ICPMS204-B_151216A	118	R111742
Iron	0.08	mg/L		0.02		E200.8	12/18/15 09:48 / dck		ICPMS204-B_151217B	22	R111789

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01
Lab ID: H15120092-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 17:45
DateReceived: 12/07/15
Report Date: 12/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 15:47 / dck		ICPMS204-B_151210A	42	R111621
Magnesium	8	mg/L		1		E200.7	12/08/15 12:58 / sld		ICP2-HE_151208A	29	R111524
Manganese	0.056	mg/L		0.001		E200.8	12/10/15 15:47 / dck		ICPMS204-B_151210A	42	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 14:17 / eli-b	12/10/15 09:31	SUB-B253692	9	B_95480
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 15:47 / dck		ICPMS204-B_151210A	42	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 15:47 / dck		ICPMS204-B_151210A	42	R111621
Potassium	3	mg/L		1		E200.7	12/08/15 12:58 / sld		ICP2-HE_151208A	29	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 15:47 / dck		ICPMS204-B_151210A	42	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 15:47 / dck		ICPMS204-B_151210A	42	R111621
Sodium	13	mg/L		1		E200.7	12/08/15 12:58 / sld		ICP2-HE_151208A	29	R111524
Uranium	0.0030	mg/L		0.0002		E200.8	12/10/15 15:47 / dck		ICPMS204-B_151210A	42	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 15:47 / dck		ICPMS204-B_151210A	42	R111621
Zinc	ND	mg/L		0.008		E200.8	12/10/15 15:47 / dck		ICPMS204-B_151210A	42	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.237	mg/L		0.009		E200.8	12/10/15 16:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	50	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 16:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	50	31414
Arsenic	0.003	mg/L		0.001		E200.8	12/15/15 03:33 / dck	12/08/15 13:55	ICPMS204-B_151214B	24	31414
Barium	0.056	mg/L		0.003		E200.8	12/10/15 16:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	50	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/15/15 03:33 / dck	12/08/15 13:55	ICPMS204-B_151214B	24	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 14:57 / sld	12/08/15 13:55	ICP2-HE_151210A	47	31414
Cadmium	ND	mg/L		0.00003		E200.8	12/15/15 03:33 / dck	12/08/15 13:55	ICPMS204-B_151214B	24	31414
Calcium	33	mg/L		1		E200.7	12/10/15 14:57 / sld	12/08/15 13:55	ICP2-HE_151210A	47	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 16:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	50	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 16:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	50	31414
Copper	0.003	mg/L		0.001		E200.8	12/18/15 10:04 / dck	12/08/15 13:55	ICPMS204-B_151217B	27	31414
Iron	0.65	mg/L		0.02		E200.8	12/10/15 16:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	50	31414
Lead	0.0006	mg/L		0.0003		E200.8	12/15/15 03:33 / dck	12/08/15 13:55	ICPMS204-B_151214B	24	31414
Magnesium	9	mg/L		1		E200.7	12/10/15 14:57 / sld	12/08/15 13:55	ICP2-HE_151210A	47	31414
Manganese	0.078	mg/L		0.001		E200.8	12/10/15 16:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	50	31414
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 15:42 / eli-b	12/11/15 09:21	SUB-B253692	14	B_95524
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 16:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	50	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01
Lab ID: H15120092-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 17:45
DateReceived: 12/07/15
Report Date: 12/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 16:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	50	31414
Potassium	3	mg/L		1		E200.7	12/10/15 14:57 / sld	12/08/15 13:55	ICP2-HE_151210A	47	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 16:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	50	31414
Silver	ND	mg/L		0.0002		E200.8	12/15/15 03:33 / dck	12/08/15 13:55	ICPMS204-B_151214B	24	31414
Sodium	13	mg/L		1		E200.7	12/10/15 14:57 / sld	12/08/15 13:55	ICP2-HE_151210A	47	31414
Uranium	0.0031	mg/L		0.0002		E200.8	12/15/15 03:33 / dck	12/08/15 13:55	ICPMS204-B_151214B	24	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 16:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	50	31414
Zinc	0.011	mg/L		0.008		E200.8	12/10/15 16:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	50	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A
Lab ID: H15120092-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 16:30 **DateReceived:** 12/07/15
Report Date: 12/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	27	mg/L	D	2		A2540 D	12/07/15 13:30 / SR		-124 (14410200)_151207A	4	TSS151207A
Solids, Volatile Suspended	7	mg/L		1		A2540 E	12/08/15 09:27 / SR		MISC WC_151208A	3	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	100	mg/L		4		A2320 B	12/08/15 09:30 / SR		PHSC_101-H_151208A	11	R111512
Bicarbonate as HCO3	130	mg/L		4		A2320 B	12/08/15 09:30 / SR		PHSC_101-H_151208A	11	R111512
Chloride	95	mg/L		1		E300.0	12/08/15 17:07 / SR		IC102-H_151208A	19	R111543
Sulfate	31	mg/L		1		E300.0	12/08/15 17:07 / SR		IC102-H_151208A	19	R111543
Hardness as CaCO3	204	mg/L		1		A2340 B	12/08/15 13:47 / abc		CALC_151209A	201	R111554
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	2.9	mg/L		0.5		A5310 C	12/11/15 21:23 / eli-c	12/11/15 11:39	SUB-C207393	6	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	12/09/15 14:04 / SR		FIA203-HE_151209B	13	R111563
Nitrogen, Nitrate+Nitrite as N	1.22	mg/L		0.02		E353.2	12/08/15 09:12 / cm		FIA203-HE_151208B	16	R111531
Nitrogen, Total	1.69	mg/L		0.05		A4500 N-C	12/09/15 10:47 / cm	12/08/15 10:36	FIA203-HE_151209A	14	31424
Phosphorus, Total as P	0.135	mg/L		0.003		E365.1	12/08/15 12:22 / cm	12/08/15 10:34	FIA202-HE_151208B	18	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621
Arsenic	0.003	mg/L		0.001		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621
Barium	0.060	mg/L		0.003		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621
Boron	0.1	mg/L		0.1		E200.7	12/08/15 13:47 / sld		ICP2-HE_151208A	42	R111524
Cadmium	ND	mg/L		0.00003		E200.8	12/15/15 03:37 / dck		ICPMS204-B_151214B	25	R111723
Calcium	37	mg/L		1		E200.7	12/08/15 13:47 / sld		ICP2-HE_151208A	42	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621
Copper	0.001	mg/L		0.001		E200.8	12/18/15 10:08 / dck		ICPMS204-B_151217B	28	R111789
Iron	0.06	mg/L		0.02		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A
Lab ID: H15120092-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 16:30
DateReceived: 12/07/15
Report Date: 12/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621
Magnesium	27	mg/L		1		E200.7	12/08/15 13:47 / sld		ICP2-HE_151208A	42	R111524
Manganese	0.129	mg/L		0.001		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 14:19 / eli-b	12/10/15 09:31	SUB-B253692	10	B_95480
Molybdenum	0.006	mg/L		0.005		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621
Potassium	4	mg/L		1		E200.7	12/08/15 13:47 / sld		ICP2-HE_151208A	42	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621
Sodium	25	mg/L		1		E200.7	12/08/15 13:47 / sld		ICP2-HE_151208A	42	R111524
Uranium	0.0041	mg/L		0.0002		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621
Zinc	0.013	mg/L		0.008		E200.8	12/10/15 16:34 / dck		ICPMS204-B_151210A	57	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.641	mg/L		0.009		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414
Arsenic	0.006	mg/L		0.001		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414
Barium	0.069	mg/L		0.003		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414
Boron	0.2	mg/L		0.1		E200.7	12/10/15 15:12 / sld	12/08/15 13:55	ICP2-HE_151210A	51	31414
Cadmium	0.00018	mg/L		0.00003		E200.8	12/15/15 03:53 / dck	12/08/15 13:55	ICPMS204-B_151214B	30	31414
Calcium	38	mg/L		1		E200.7	12/10/15 15:12 / sld	12/08/15 13:55	ICP2-HE_151210A	51	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414
Copper	0.015	mg/L		0.001		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414
Iron	1.25	mg/L		0.02		E200.7	12/10/15 15:12 / sld	12/08/15 13:55	ICP2-HE_151210A	51	31414
Lead	0.0053	mg/L		0.0003		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414
Magnesium	29	mg/L		1		E200.7	12/10/15 15:12 / sld	12/08/15 13:55	ICP2-HE_151210A	51	31414
Manganese	0.162	mg/L		0.001		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414
Mercury	0.0000119	mg/L		5E-06		E245.1	12/11/15 15:45 / eli-b	12/11/15 09:21	SUB-B253692	15	B_95524
Molybdenum	0.006	mg/L		0.005		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A
Lab ID: H15120092-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 16:30
DateReceived: 12/07/15
Report Date: 12/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414
Potassium	4	mg/L		1		E200.7	12/10/15 15:12 / sld	12/08/15 13:55	ICP2-HE_151210A	51	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414
Sodium	24	mg/L		1		E200.7	12/10/15 15:12 / sld	12/08/15 13:55	ICP2-HE_151210A	51	31414
Uranium	0.0045	mg/L		0.0002		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414
Zinc	0.044	mg/L		0.008		E200.8	12/10/15 16:37 / dck	12/08/15 13:55	ICPMS204-B_151210A	58	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G
Lab ID: H15120092-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 13:15
DateReceived: 12/07/15
Report Date: 12/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	3	mg/L		1		A2540 D	12/07/15 13:31 / SR		-124 (14410200)_151207A	6	TSS151207A
Solids, Volatile Suspended	2	mg/L		1		A2540 E	12/08/15 09:27 / SR		MISC WC_151208A	5	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	12/08/15 09:36 / SR		PHSC_101-H_151208A	13	R111512
Bicarbonate as HCO3	130	mg/L		4		A2320 B	12/08/15 09:36 / SR		PHSC_101-H_151208A	13	R111512
Chloride	1	mg/L		1		E300.0	12/08/15 17:18 / SR		IC102-H_151208A	20	R111543
Sulfate	20	mg/L		1		E300.0	12/08/15 17:18 / SR		IC102-H_151208A	20	R111543
Hardness as CaCO3	114	mg/L		1		A2340 B	12/08/15 13:50 / abc		CALC_151215A	27	R111683
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	1.6	mg/L		0.5		A5310 C	12/11/15 21:39 / eli-c	12/11/15 11:39	SUB-C207393	7	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	12/09/15 14:06 / SR		FIA203-HE_151209B	14	R111563
Nitrogen, Nitrate+Nitrite as N	0.09	mg/L		0.02		E353.2	12/08/15 09:13 / cm		FIA203-HE_151208B	17	R111531
Nitrogen, Total	0.18	mg/L		0.05		A4500 N-C	12/09/15 10:49 / cm	12/08/15 10:36	FIA203-HE_151209A	15	31424
Phosphorus, Total as P	0.035	mg/L		0.003		E365.1	12/08/15 12:23 / cm	12/08/15 10:34	FIA202-HE_151208B	19	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/10/15 16:40 / dck		ICPMS204-B_151210A	59	R111621
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 16:40 / dck		ICPMS204-B_151210A	59	R111621
Arsenic	0.003	mg/L		0.001		E200.8	12/10/15 16:40 / dck		ICPMS204-B_151210A	59	R111621
Barium	0.022	mg/L		0.003		E200.8	12/10/15 16:40 / dck		ICPMS204-B_151210A	59	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 16:40 / dck		ICPMS204-B_151210A	59	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 13:50 / sld		ICP2-HE_151208A	43	R111524
Cadmium	ND	mg/L		0.00003		E200.8	12/15/15 03:56 / dck		ICPMS204-B_151214B	31	R111723
Calcium	35	mg/L		1		E200.7	12/08/15 13:50 / sld		ICP2-HE_151208A	43	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 16:40 / dck		ICPMS204-B_151210A	59	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 16:40 / dck		ICPMS204-B_151210A	59	R111621
Copper	ND	mg/L		0.001		E200.8	12/10/15 16:40 / dck		ICPMS204-B_151210A	59	R111621
Iron	ND	mg/L		0.02		E200.8	12/10/15 16:40 / dck		ICPMS204-B_151210A	59	R111621

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G
Lab ID: H15120092-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 13:15
DateReceived: 12/07/15
Report Date: 12/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 16:40 / dck		ICPMS204-B_151210A	59	R111621
Magnesium	6	mg/L		1		E200.7	12/08/15 13:50 / sld		ICP2-HE_151208A	43	R111524
Manganese	0.002	mg/L		0.001		E200.8	12/15/15 03:56 / dck		ICPMS204-B_151214B	31	R111723
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 14:27 / eli-b	12/10/15 09:31	SUB-B253692	13	B_95480
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 16:40 / dck		ICPMS204-B_151210A	59	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 16:40 / dck		ICPMS204-B_151210A	59	R111621
Potassium	1	mg/L		1		E200.7	12/08/15 13:50 / sld		ICP2-HE_151208A	43	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 16:40 / dck		ICPMS204-B_151210A	59	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 16:40 / dck		ICPMS204-B_151210A	59	R111621
Sodium	5	mg/L		1		E200.7	12/08/15 13:50 / sld		ICP2-HE_151208A	43	R111524
Uranium	0.0008	mg/L		0.0002		E200.8	12/15/15 03:56 / dck		ICPMS204-B_151214B	31	R111723
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 16:40 / dck		ICPMS204-B_151210A	59	R111621
Zinc	ND	mg/L		0.008		E200.8	12/10/15 16:40 / dck		ICPMS204-B_151210A	59	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.082	mg/L		0.009		E200.8	12/10/15 16:44 / dck	12/08/15 13:55	ICPMS204-B_151210A	60	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 16:44 / dck	12/08/15 13:55	ICPMS204-B_151210A	60	31414
Arsenic	0.004	mg/L		0.001		E200.8	12/10/15 16:44 / dck	12/08/15 13:55	ICPMS204-B_151210A	60	31414
Barium	0.022	mg/L		0.003		E200.8	12/10/15 16:44 / dck	12/08/15 13:55	ICPMS204-B_151210A	60	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 16:44 / dck	12/08/15 13:55	ICPMS204-B_151210A	60	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 15:16 / sld	12/08/15 13:55	ICP2-HE_151210A	52	31414
Cadmium	ND	mg/L		0.00003		E200.8	12/10/15 16:44 / dck	12/08/15 13:55	ICPMS204-B_151210A	60	31414
Calcium	37	mg/L		1		E200.7	12/10/15 15:16 / sld	12/08/15 13:55	ICP2-HE_151210A	52	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 16:44 / dck	12/08/15 13:55	ICPMS204-B_151210A	60	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 16:44 / dck	12/08/15 13:55	ICPMS204-B_151210A	60	31414
Copper	ND	mg/L		0.001		E200.8	12/18/15 10:11 / dck	12/08/15 13:55	ICPMS204-B_151217B	29	31414
Iron	0.08	mg/L		0.02		E200.8	12/10/15 16:44 / dck	12/08/15 13:55	ICPMS204-B_151210A	60	31414
Lead	ND	mg/L		0.0003		E200.8	12/10/15 16:44 / dck	12/08/15 13:55	ICPMS204-B_151210A	60	31414
Magnesium	7	mg/L		1		E200.7	12/10/15 15:16 / sld	12/08/15 13:55	ICP2-HE_151210A	52	31414
Manganese	0.005	mg/L		0.001		E200.8	12/15/15 03:59 / dck	12/08/15 13:55	ICPMS204-B_151214B	32	31414
Mercury	ND	mg/L		5E-06		E245.1	12/10/15 15:58 / eli-b	12/10/15 09:33	SUB-B253629	25	B_95481
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 16:44 / dck	12/08/15 13:55	ICPMS204-B_151210A	60	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-15G
Lab ID: H15120092-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 13:15
DateReceived: 12/07/15
Report Date: 12/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 16:44 / dck	12/08/15 13:55	ICPMS204-B_151210A	60	31414
Potassium	1	mg/L		1		E200.7	12/10/15 15:16 / sld	12/08/15 13:55	ICP2-HE_151210A	52	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 16:44 / dck	12/08/15 13:55	ICPMS204-B_151210A	60	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 16:44 / dck	12/08/15 13:55	ICPMS204-B_151210A	60	31414
Sodium	5	mg/L		1		E200.7	12/10/15 15:16 / sld	12/08/15 13:55	ICP2-HE_151210A	52	31414
Uranium	0.0008	mg/L		0.0002		E200.8	12/15/15 03:59 / dck	12/08/15 13:55	ICPMS204-B_151214B	32	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 16:44 / dck	12/08/15 13:55	ICPMS204-B_151210A	60	31414
Zinc	ND	mg/L		0.008		E200.8	12/10/15 16:44 / dck	12/08/15 13:55	ICPMS204-B_151210A	60	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01 Sediment Sieve <0.065mm
Lab ID: H15120092-004
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 17:45
DateReceived: 12/07/15
Report Date: 12/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	3.0	wt% Passed		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	1	R111708
PHYSICAL CHARACTERISTICS											
Moisture	52.5	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	1	R111840
3050 EXTRACTABLE METALS											
Aluminum	22200	mg/kg-dry		7		SW6010B	12/17/15 14:44 / sld	12/15/15 10:34	ICP2-HE_151217A	41	31476
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 18:50 / dck	12/15/15 10:34	ICPMS204-B_151217A	40	31476
Arsenic	37	mg/kg-dry		5		SW6020	12/17/15 18:50 / dck	12/15/15 10:34	ICPMS204-B_151217A	40	31476
Barium	271	mg/kg-dry		5		SW6010B	12/17/15 14:44 / sld	12/15/15 10:34	ICP2-HE_151217A	41	31476
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 14:44 / sld	12/15/15 10:34	ICP2-HE_151217A	41	31476
Boron	8	mg/kg-dry		5		SW6020	12/17/15 18:50 / dck	12/15/15 10:34	ICPMS204-B_151217A	40	31476
Cadmium	1.7	mg/kg-dry		0.4		SW6020	12/17/15 18:50 / dck	12/15/15 10:34	ICPMS204-B_151217A	40	31476
Chromium	50	mg/kg-dry		5		SW6020	12/17/15 18:50 / dck	12/15/15 10:34	ICPMS204-B_151217A	40	31476
Cobalt	11	mg/kg-dry		5		SW6020	12/17/15 18:50 / dck	12/15/15 10:34	ICPMS204-B_151217A	40	31476
Copper	328	mg/kg-dry		5		SW6010B	12/17/15 14:44 / sld	12/15/15 10:34	ICP2-HE_151217A	41	31476
Iron	34900	mg/kg-dry		7		SW6010B	12/17/15 14:44 / sld	12/15/15 10:34	ICP2-HE_151217A	41	31476
Lead	134	mg/kg-dry		5		SW6020	12/17/15 18:50 / dck	12/15/15 10:34	ICPMS204-B_151217A	40	31476
Manganese	836	mg/kg-dry		5		SW6010B	12/17/15 14:44 / sld	12/15/15 10:34	ICP2-HE_151217A	41	31476
Molybdenum	23	mg/kg-dry		5		SW6020	12/17/15 18:50 / dck	12/15/15 10:34	ICPMS204-B_151217A	40	31476
Nickel	21	mg/kg-dry		5		SW6010B	12/17/15 14:44 / sld	12/15/15 10:34	ICP2-HE_151217A	41	31476
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 18:50 / dck	12/15/15 10:34	ICPMS204-B_151217A	40	31476
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 18:50 / dck	12/15/15 10:34	ICPMS204-B_151217A	40	31476
Uranium	8	mg/kg-dry		5		SW6020	12/17/15 18:50 / dck	12/15/15 10:34	ICPMS204-B_151217A	40	31476
Vanadium	99	mg/kg-dry		2		SW6010B	12/17/15 14:44 / sld	12/15/15 10:34	ICP2-HE_151217A	41	31476
Zinc	381	mg/kg-dry		5		SW6010B	12/17/15 14:44 / sld	12/15/15 10:34	ICP2-HE_151217A	41	31476
METALS, TOTAL											
Mercury	0.19	mg/kg-dry		0.10		SW7471B	12/11/15 14:43 / rgk	12/11/15 08:18	HGCV201-H_151211A	13	31449

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01 Sediment Sieve 0.065-1mm
Lab ID: H15120092-005
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 17:45
DateReceived: 12/07/15
Report Date: 12/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	60.2	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	2	R111708
PHYSICAL CHARACTERISTICS											
Moisture	20.2	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	2	R111840
3050 EXTRACTABLE METALS											
Aluminum	4570	mg/kg-dry		5		SW6010B	12/17/15 16:05 / sld	12/15/15 10:35	ICP2-HE_151217A	63	31477
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 20:11 / dck	12/15/15 10:35	ICPMS204-B_151217A	65	31477
Arsenic	6	mg/kg-dry		5		SW6020	12/17/15 20:11 / dck	12/15/15 10:35	ICPMS204-B_151217A	65	31477
Barium	53	mg/kg-dry		5		SW6020	12/17/15 20:11 / dck	12/15/15 10:35	ICPMS204-B_151217A	65	31477
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 16:05 / sld	12/15/15 10:35	ICP2-HE_151217A	63	31477
Boron	ND	mg/kg-dry		5		SW6020	12/17/15 20:11 / dck	12/15/15 10:35	ICPMS204-B_151217A	65	31477
Cadmium	0.3	mg/kg-dry		0.2		SW6020	12/17/15 20:11 / dck	12/15/15 10:35	ICPMS204-B_151217A	65	31477
Chromium	9	mg/kg-dry		5		SW6020	12/17/15 20:11 / dck	12/15/15 10:35	ICPMS204-B_151217A	65	31477
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 20:11 / dck	12/15/15 10:35	ICPMS204-B_151217A	65	31477
Copper	37	mg/kg-dry		5		SW6010B	12/17/15 16:05 / sld	12/15/15 10:35	ICP2-HE_151217A	63	31477
Iron	10200	mg/kg-dry		5		SW6010B	12/17/15 16:05 / sld	12/15/15 10:35	ICP2-HE_151217A	63	31477
Lead	13	mg/kg-dry		5		SW6020	12/17/15 20:11 / dck	12/15/15 10:35	ICPMS204-B_151217A	65	31477
Manganese	149	mg/kg-dry		5		SW6010B	12/17/15 16:05 / sld	12/15/15 10:35	ICP2-HE_151217A	63	31477
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 20:11 / dck	12/15/15 10:35	ICPMS204-B_151217A	65	31477
Nickel	ND	mg/kg-dry		5		SW6010B	12/17/15 16:05 / sld	12/15/15 10:35	ICP2-HE_151217A	63	31477
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 20:11 / dck	12/15/15 10:35	ICPMS204-B_151217A	65	31477
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 20:11 / dck	12/15/15 10:35	ICPMS204-B_151217A	65	31477
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 20:11 / dck	12/15/15 10:35	ICPMS204-B_151217A	65	31477
Vanadium	26	mg/kg-dry		1		SW6020	12/17/15 20:11 / dck	12/15/15 10:35	ICPMS204-B_151217A	65	31477
Zinc	91	mg/kg-dry		5		SW6010B	12/17/15 16:05 / sld	12/15/15 10:35	ICP2-HE_151217A	63	31477
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	12/11/15 14:51 / rgk	12/11/15 08:18	HGCV201-H_151211A	17	31449

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-01 Sediment Sieve 1-2mm
Lab ID: H15120092-006
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 17:45
DateReceived: 12/07/15
Report Date: 12/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	22.3	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	3	R111708
PHYSICAL CHARACTERISTICS											
Moisture	16.8	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	4	R111840
3050 EXTRACTABLE METALS											
Aluminum	2720	mg/kg-dry		5		SW6010B	12/17/15 18:10 / sld	12/15/15 10:36	ICP2-HE_151217A	96	31478
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 21:30 / dck	12/15/15 10:36	ICPMS204-B_151217A	90	31478
Arsenic	ND	mg/kg-dry		5		SW6020	12/17/15 21:30 / dck	12/15/15 10:36	ICPMS204-B_151217A	90	31478
Barium	43	mg/kg-dry		5		SW6010B	12/17/15 18:10 / sld	12/15/15 10:36	ICP2-HE_151217A	96	31478
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 18:10 / sld	12/15/15 10:36	ICP2-HE_151217A	96	31478
Boron	ND	mg/kg-dry		5		SW6020	12/18/15 15:11 / dck	12/15/15 10:36	ICPMS204-B_151218A	17	31478
Cadmium	ND	mg/kg-dry		0.2		SW6020	12/17/15 21:30 / dck	12/15/15 10:36	ICPMS204-B_151217A	90	31478
Chromium	5	mg/kg-dry		5		SW6020	12/17/15 21:30 / dck	12/15/15 10:36	ICPMS204-B_151217A	90	31478
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 21:30 / dck	12/15/15 10:36	ICPMS204-B_151217A	90	31478
Copper	19	mg/kg-dry		5		SW6010B	12/17/15 18:10 / sld	12/15/15 10:36	ICP2-HE_151217A	96	31478
Iron	4910	mg/kg-dry		5		SW6010B	12/17/15 18:10 / sld	12/15/15 10:36	ICP2-HE_151217A	96	31478
Lead	7	mg/kg-dry		5		SW6020	12/17/15 21:30 / dck	12/15/15 10:36	ICPMS204-B_151217A	90	31478
Manganese	97	mg/kg-dry		5		SW6010B	12/17/15 18:10 / sld	12/15/15 10:36	ICP2-HE_151217A	96	31478
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 21:30 / dck	12/15/15 10:36	ICPMS204-B_151217A	90	31478
Nickel	ND	mg/kg-dry		5		SW6010B	12/17/15 18:10 / sld	12/15/15 10:36	ICP2-HE_151217A	96	31478
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 21:30 / dck	12/15/15 10:36	ICPMS204-B_151217A	90	31478
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 21:30 / dck	12/15/15 10:36	ICPMS204-B_151217A	90	31478
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 21:30 / dck	12/15/15 10:36	ICPMS204-B_151217A	90	31478
Vanadium	12	mg/kg-dry		1		SW6020	12/17/15 21:30 / dck	12/15/15 10:36	ICPMS204-B_151217A	90	31478
Zinc	43	mg/kg-dry	D	10		SW6020	12/17/15 21:30 / dck	12/15/15 10:36	ICPMS204-B_151217A	90	31478
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	12/11/15 14:53 / rgk	12/11/15 08:18	HGCV201-H_151211A	18	31449

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A Sediment Sieve <0.065mm
Lab ID: H15120092-007
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 16:00
DateReceived: 12/07/15
Report Date: 12/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	4.9	wt% Passed		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	4	R111708
PHYSICAL CHARACTERISTICS											
Moisture	52.1	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	5	R111840
3050 EXTRACTABLE METALS											
Aluminum	19200	mg/kg-dry		7		SW6010B	12/17/15 14:48 / sld	12/15/15 10:34	ICP2-HE_151217A	42	31476
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 18:53 / dck	12/15/15 10:34	ICPMS204-B_151217A	41	31476
Arsenic	223	mg/kg-dry		5		SW6020	12/17/15 18:53 / dck	12/15/15 10:34	ICPMS204-B_151217A	41	31476
Barium	319	mg/kg-dry		5		SW6010B	12/17/15 14:48 / sld	12/15/15 10:34	ICP2-HE_151217A	42	31476
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 14:48 / sld	12/15/15 10:34	ICP2-HE_151217A	42	31476
Boron	11	mg/kg-dry		5		SW6020	12/17/15 18:53 / dck	12/15/15 10:34	ICPMS204-B_151217A	41	31476
Cadmium	12.5	mg/kg-dry		0.3		SW6020	12/17/15 18:53 / dck	12/15/15 10:34	ICPMS204-B_151217A	41	31476
Chromium	58	mg/kg-dry		5		SW6020	12/17/15 18:53 / dck	12/15/15 10:34	ICPMS204-B_151217A	41	31476
Cobalt	12	mg/kg-dry		5		SW6020	12/17/15 18:53 / dck	12/15/15 10:34	ICPMS204-B_151217A	41	31476
Copper	2230	mg/kg-dry		5		SW6010B	12/17/15 14:48 / sld	12/15/15 10:34	ICP2-HE_151217A	42	31476
Iron	42700	mg/kg-dry		6		SW6010B	12/17/15 14:48 / sld	12/15/15 10:34	ICP2-HE_151217A	42	31476
Lead	585	mg/kg-dry		6		SW6010B	12/17/15 14:48 / sld	12/15/15 10:34	ICP2-HE_151217A	42	31476
Manganese	1670	mg/kg-dry		5		SW6010B	12/17/15 14:48 / sld	12/15/15 10:34	ICP2-HE_151217A	42	31476
Molybdenum	14	mg/kg-dry		5		SW6020	12/17/15 18:53 / dck	12/15/15 10:34	ICPMS204-B_151217A	41	31476
Nickel	21	mg/kg-dry		5		SW6010B	12/17/15 14:48 / sld	12/15/15 10:34	ICP2-HE_151217A	42	31476
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 18:53 / dck	12/15/15 10:34	ICPMS204-B_151217A	41	31476
Silver	8	mg/kg-dry		5		SW6020	12/17/15 18:53 / dck	12/15/15 10:34	ICPMS204-B_151217A	41	31476
Uranium	9	mg/kg-dry		5		SW6020	12/17/15 18:53 / dck	12/15/15 10:34	ICPMS204-B_151217A	41	31476
Vanadium	92	mg/kg-dry		1		SW6010B	12/17/15 14:48 / sld	12/15/15 10:34	ICP2-HE_151217A	42	31476
Zinc	2700	mg/kg-dry		5		SW6010B	12/17/15 14:48 / sld	12/15/15 10:34	ICP2-HE_151217A	42	31476
METALS, TOTAL											
Mercury	0.91	mg/kg-dry		0.10		SW7471B	12/11/15 14:55 / rgk	12/11/15 08:18	HGCV201-H_151211A	19	31449

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A Sediment Sieve 0.065-1mm
Lab ID: H15120092-008
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 16:00
DateReceived: 12/07/15
Report Date: 12/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	35.0	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	5	R111708
PHYSICAL CHARACTERISTICS											
Moisture	22.1	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	6	R111840
3050 EXTRACTABLE METALS											
Aluminum	4930	mg/kg-dry		5		SW6010B	12/17/15 16:09 / sld	12/15/15 10:35	ICP2-HE_151217A	64	31477
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 20:14 / dck	12/15/15 10:35	ICPMS204-B_151217A	66	31477
Arsenic	98	mg/kg-dry		5		SW6020	12/17/15 20:14 / dck	12/15/15 10:35	ICPMS204-B_151217A	66	31477
Barium	81	mg/kg-dry		5		SW6020	12/17/15 20:14 / dck	12/15/15 10:35	ICPMS204-B_151217A	66	31477
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 16:09 / sld	12/15/15 10:35	ICP2-HE_151217A	64	31477
Boron	ND	mg/kg-dry		5		SW6020	12/17/15 20:14 / dck	12/15/15 10:35	ICPMS204-B_151217A	66	31477
Cadmium	3.3	mg/kg-dry		0.2		SW6020	12/17/15 20:14 / dck	12/15/15 10:35	ICPMS204-B_151217A	66	31477
Chromium	24	mg/kg-dry		5		SW6020	12/17/15 20:14 / dck	12/15/15 10:35	ICPMS204-B_151217A	66	31477
Cobalt	16	mg/kg-dry		5		SW6020	12/17/15 20:14 / dck	12/15/15 10:35	ICPMS204-B_151217A	66	31477
Copper	797	mg/kg-dry		5		SW6010B	12/17/15 16:09 / sld	12/15/15 10:35	ICP2-HE_151217A	64	31477
Iron	60600	mg/kg-dry		5		SW6010B	12/17/15 16:09 / sld	12/15/15 10:35	ICP2-HE_151217A	64	31477
Lead	186	mg/kg-dry		5		SW6020	12/17/15 20:14 / dck	12/15/15 10:35	ICPMS204-B_151217A	66	31477
Manganese	965	mg/kg-dry		5		SW6010B	12/17/15 16:09 / sld	12/15/15 10:35	ICP2-HE_151217A	64	31477
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 20:14 / dck	12/15/15 10:35	ICPMS204-B_151217A	66	31477
Nickel	11	mg/kg-dry		5		SW6010B	12/17/15 16:09 / sld	12/15/15 10:35	ICP2-HE_151217A	64	31477
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 20:14 / dck	12/15/15 10:35	ICPMS204-B_151217A	66	31477
Silver	9	mg/kg-dry		5		SW6020	12/17/15 20:14 / dck	12/15/15 10:35	ICPMS204-B_151217A	66	31477
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 20:14 / dck	12/15/15 10:35	ICPMS204-B_151217A	66	31477
Vanadium	75	mg/kg-dry		1		SW6020	12/17/15 20:14 / dck	12/15/15 10:35	ICPMS204-B_151217A	66	31477
Zinc	1180	mg/kg-dry		5		SW6010B	12/17/15 16:09 / sld	12/15/15 10:35	ICP2-HE_151217A	64	31477
METALS, TOTAL											
Mercury	0.14	mg/kg-dry		0.10		SW7471B	12/11/15 14:57 / rgk	12/11/15 08:18	HGCV201-H_151211A	20	31449

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program
Client Sample ID: SS-05A Sediment Sieve 1-2mm
Lab ID: H15120092-009
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 16:00
DateReceived: 12/07/15
Report Date: 12/23/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	18.4	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	6	R111708
PHYSICAL CHARACTERISTICS											
Moisture	13.7	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	7	R111840
3050 EXTRACTABLE METALS											
Aluminum	4400	mg/kg-dry		5		SW6010B	12/17/15 18:13 / sld	12/15/15 10:36	ICP2-HE_151217A	97	31478
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 21:33 / dck	12/15/15 10:36	ICPMS204-B_151217A	91	31478
Arsenic	63	mg/kg-dry		5		SW6020	12/17/15 21:33 / dck	12/15/15 10:36	ICPMS204-B_151217A	91	31478
Barium	67	mg/kg-dry		5		SW6010B	12/17/15 18:13 / sld	12/15/15 10:36	ICP2-HE_151217A	97	31478
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 18:13 / sld	12/15/15 10:36	ICP2-HE_151217A	97	31478
Boron	7	mg/kg-dry		5		SW6020	12/18/15 15:14 / dck	12/15/15 10:36	ICPMS204-B_151218A	18	31478
Cadmium	2.2	mg/kg-dry		0.2		SW6020	12/17/15 21:33 / dck	12/15/15 10:36	ICPMS204-B_151217A	91	31478
Chromium	5	mg/kg-dry		5		SW6020	12/17/15 21:33 / dck	12/15/15 10:36	ICPMS204-B_151217A	91	31478
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 21:33 / dck	12/15/15 10:36	ICPMS204-B_151217A	91	31478
Copper	334	mg/kg-dry		5		SW6010B	12/17/15 18:13 / sld	12/15/15 10:36	ICP2-HE_151217A	97	31478
Iron	15100	mg/kg-dry		5		SW6010B	12/17/15 18:13 / sld	12/15/15 10:36	ICP2-HE_151217A	97	31478
Lead	69	mg/kg-dry		5		SW6020	12/17/15 21:33 / dck	12/15/15 10:36	ICPMS204-B_151217A	91	31478
Manganese	755	mg/kg-dry		5		SW6010B	12/17/15 18:13 / sld	12/15/15 10:36	ICP2-HE_151217A	97	31478
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 21:33 / dck	12/15/15 10:36	ICPMS204-B_151217A	91	31478
Nickel	ND	mg/kg-dry		5		SW6010B	12/17/15 18:13 / sld	12/15/15 10:36	ICP2-HE_151217A	97	31478
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 21:33 / dck	12/15/15 10:36	ICPMS204-B_151217A	91	31478
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 21:33 / dck	12/15/15 10:36	ICPMS204-B_151217A	91	31478
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 21:33 / dck	12/15/15 10:36	ICPMS204-B_151217A	91	31478
Vanadium	20	mg/kg-dry		1		SW6020	12/17/15 21:33 / dck	12/15/15 10:36	ICPMS204-B_151217A	91	31478
Zinc	740	mg/kg-dry	D	10		SW6020	12/17/15 21:33 / dck	12/15/15 10:36	ICPMS204-B_151217A	91	31478
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	12/11/15 14:59 / rgk	12/11/15 08:18	HGCV201-H_151211A	21	31449

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B										Batch: R111512
Lab ID: MB		Method Blank				Run: PHSC_101-H_151208A				12/08/15 08:56
Alkalinity, Total as CaCO3		2	mg/L	0.7						
Lab ID: LCS		Laboratory Control Sample				Run: PHSC_101-H_151208A				12/08/15 09:00
Alkalinity, Total as CaCO3		590	mg/L	4.0	98	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 D									Batch: TSS151207A	
Lab ID: MB-1_151207A		Method Blank				Run: ACCU-124 (14410200)_15120			12/07/15 13:30	
Solids, Total Suspended TSS @ 105 C		ND	mg/L	0.1						
Lab ID: LCS-2_151207A		Laboratory Control Sample				Run: ACCU-124 (14410200)_15120			12/07/15 13:30	
Solids, Total Suspended TSS @ 105 C		90.0	mg/L	10	90	80	120			
Lab ID: H15120092-002ADUP		Sample Duplicate				Run: ACCU-124 (14410200)_15120			12/07/15 13:31	
Solids, Total Suspended TSS @ 105 C		27.8	mg/L	10				1.4	5	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 E									Batch: 151208A-SLDS-VSS-W	
Lab ID: MBLK1_151208A		Method Blank				Run: MISC WC_151208A			12/08/15 09:27	
Solids, Volatile Suspended		ND	mg/L	1						
Lab ID: H15120092-002ADUP		Sample Duplicate				Run: MISC WC_151208A			12/08/15 09:27	
Solids, Volatile Suspended		7	mg/L	10					30	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500 N-C									Analytical Run: FIA203-HE_151209A	
Lab ID: CCV		Continuing Calibration Verification Standard							12/09/15 10:41	
Nitrogen, Total		0.525	mg/L	0.10	105	90	110			
Lab ID: ICB		Initial Calibration Blank, Instrument Blank							12/09/15 10:43	
Nitrogen, Total		0.0227	mg/L	0.10		0	0			
Lab ID: ICB		Initial Calibration Blank, Instrument Blank							12/09/15 12:32	
Nitrogen, Total		0.0362	mg/L	0.10		0	0			
Method: A4500 N-C									Batch: 31424	
Lab ID: LCS-31424		Laboratory Control Sample				Run: FIA203-HE_151209A			12/09/15 10:44	
Nitrogen, Total		6.01	mg/L	0.15	94	90	110			
Lab ID: MB-31424		Method Blank				Run: FIA203-HE_151209A			12/09/15 10:45	
Nitrogen, Total		0.02	mg/L	0.005						
Lab ID: H15120093-002AMS		Sample Matrix Sp ke				Run: FIA203-HE_151209A			12/09/15 10:52	
Nitrogen, Total		0.871	mg/L	0.10	84	90	110			S
Lab ID: H15120093-002AMSD		Sample Matrix Sp ke Duplicate				Run: FIA203-HE_151209A			12/09/15 10:53	
Nitrogen, Total		0.866	mg/L	0.10	84	90	110	0.5	20	S

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A5310 C									Analytical Run: SUB-C207393	
Lab ID: CCV-46431		Continuing Calibration Verification Standard							12/11/15 20:21	
Organic Carbon, Dissolved (DOC)		10.3	mg/L	0.50	103	90	110			
Method: A5310 C									Batch: C_46431	
Lab ID: MB-46431		Method Blank				Run: SUB-C207393			12/11/15 19:39	
Organic Carbon, Dissolved (DOC)		0.2	mg/L	0.04						
Lab ID: C15120350-001EMS		Sample Matrix Sp ke				Run: SUB-C207393			12/11/15 20:52	
Organic Carbon, Dissolved (DOC)		7.36	mg/L	0.50	102	85	115			
Lab ID: C15120350-001EMSD		Sample Matrix Sp ke Duplicate				Run: SUB-C207393			12/11/15 21:07	
Organic Carbon, Dissolved (DOC)		7.37	mg/L	0.50	103	85	115	0.2	10	
Lab ID: LCS-46431		Laboratory Control Sample				Run: SUB-C207393			12/12/15 03:43	
Organic Carbon, Dissolved (DOC)		10.7	mg/L	0.50	105	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**D2974**									Batch: R111840
Lab ID:	**H15120092-005ADUP**	Sample Duplicate				Run: SOIL DRYING OVEN 2_15122			12/22/15 08:18	
Moisture		19.7	wt%	0.20				2.4	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: ICP2-HE_151208A	
Lab ID: ICV	5	Initial Calibration Verification Standard							12/08/15 09:22	
Boron		0.813	mg/L	0.10	102	95	105			
Calcium		40.2	mg/L	1.0	100	95	105			
Magnesium		39.5	mg/L	1.0	99	95	105			
Potassium		39.8	mg/L	1.0	100	95	105			
Sodium		40.0	mg/L	1.0	100	95	105			
Lab ID: CCV-1	5	Continuing Calibration Verification Standard							12/08/15 09:26	
Boron		2.54	mg/L	0.10	101	95	105			
Calcium		25.3	mg/L	1.0	101	95	105			
Magnesium		24.5	mg/L	1.0	98	95	105			
Potassium		25.0	mg/L	1.0	100	95	105			
Sodium		25.2	mg/L	1.0	101	95	105			
Lab ID: ICSA	5	Interference Check Sample A							12/08/15 09:37	
Boron		-0.000570	mg/L	0.10		0	0			
Calcium		452	mg/L	1.0	90	80	120			
Magnesium		494	mg/L	1.0	99	80	120			
Potassium		0.00215	mg/L	1.0		0	0			
Sodium		0.00458	mg/L	1.0		0	0			
Lab ID: ICSAB	5	Interference Check Sample AB							12/08/15 09:41	
Boron		1.00	mg/L	0.10	100	80	120			
Calcium		458	mg/L	1.0	92	80	120			
Magnesium		501	mg/L	1.0	100	80	120			
Potassium		20.2	mg/L	1.0	101	80	120			
Sodium		20.4	mg/L	1.0	102	80	120			
Lab ID: CCV	5	Continuing Calibration Verification Standard							12/08/15 12:24	
Boron		2.45	mg/L	0.10	98	90	110			
Calcium		23.1	mg/L	1.0	92	90	110			
Magnesium		23.1	mg/L	1.0	92	90	110			
Potassium		25.0	mg/L	1.0	100	90	110			
Sodium		25.6	mg/L	1.0	102	90	110			
Lab ID: CCV	5	Continuing Calibration Verification Standard							12/08/15 13:36	
Boron		2.58	mg/L	0.10	103	90	110			
Calcium		25.3	mg/L	1.0	101	90	110			
Magnesium		24.8	mg/L	1.0	99	90	110			
Potassium		24.9	mg/L	1.0	99	90	110			
Sodium		24.8	mg/L	1.0	99	90	110			
Method: E200.7									Batch: R111524	
Lab ID: ICB	5	Method Blank				Run: ICP2-HE_151208A			12/08/15 09:49	
Boron		ND	mg/L	0.003						
Calcium		0.05	mg/L	0.03						
Magnesium		0.01	mg/L	0.005						

Qualifiers:

RL - Analyte reporting limit. ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.7**									Batch: R111524	
Lab ID:	**ICB**	5	Method Blank				Run: ICP2-HE_151208A			12/08/15 09:49	
Potassium			ND	mg/L	0.07						
Sodium			ND	mg/L	0.02						
Lab ID:	**LFB**	5	Laboratory Fortified Blank				Run: ICP2-HE_151208A			12/08/15 09:53	
Boron			1.00	mg/L	0.10	100	85	115			
Calcium			49.0	mg/L	1.0	98	85	115			
Magnesium			48.9	mg/L	1.0	98	85	115			
Potassium			48.2	mg/L	1.0	96	85	115			
Sodium			48.7	mg/L	1.0	97	85	115			
Lab ID:	**H15120092-001BMS2**	5	Sample Matrix Sp ke				Run: ICP2-HE_151208A			12/08/15 13:06	
Boron			0.964	mg/L	0.050	95	70	130			
Calcium			74.0	mg/L	1.0	89	70	130			
Magnesium			54.2	mg/L	1.0	92	70	130			
Potassium			54.3	mg/L	1.0	103	70	130			
Sodium			65.9	mg/L	1.0	106	70	130			
Lab ID:	**H15120093-008BMS2**	5	Sample Matrix Sp ke				Run: ICP2-HE_151208A			12/08/15 14:36	
Boron			1.06	mg/L	0.050	99	70	130			
Calcium			111	mg/L	1.0	100	70	130			
Magnesium			62.7	mg/L	1.0	99	70	130			
Potassium			56.8	mg/L	1.0	100	70	130			
Sodium			86.0	mg/L	1.0	100	70	130			
Lab ID:	**H15120093-008BMSD**	5	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_151208A			12/08/15 14:39	
Boron			1.05	mg/L	0.050	99	70	130	0.3	20	
Calcium			111	mg/L	1.0	99	70	130	0.5	20	
Magnesium			62.8	mg/L	1.0	99	70	130	0.1	20	
Potassium			58.7	mg/L	1.0	104	70	130	3.4	20	
Sodium			89.0	mg/L	1.0	106	70	130	3.4	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.7**								Analytical Run: ICP2-HE_151210A		
Lab ID:	**ICV**	6	Initial Calibration Verification Standard							12/10/15 12:22	
Boron			0.824	mg/L	0.10	103	95	105			
Calcium			41.4	mg/L	1.0	104	95	105			
Iron			4.05	mg/L	0.020	101	95	105			
Magnesium			41.1	mg/L	1.0	103	95	105			
Potassium			38.7	mg/L	1.0	97	95	105			
Sodium			38.3	mg/L	1.0	96	95	105			
Lab ID:	**CCV-1**	6	Continuing Calibration Verification Standard							12/10/15 12:25	
Boron			2.61	mg/L	0.10	104	95	105			
Calcium			26.3	mg/L	1.0	105	95	105			
Iron			2.57	mg/L	0.020	103	95	105			
Magnesium			25.7	mg/L	1.0	103	95	105			
Potassium			24.7	mg/L	1.0	99	95	105			
Sodium			24.5	mg/L	1.0	98	95	105			
Lab ID:	**ICSA**	6	Interference Check Sample A							12/10/15 12:37	
Boron			0.00330	mg/L	0.10		0	0			
Calcium			495	mg/L	1.0	99	80	120			
Iron			190	mg/L	0.020	95	80	120			
Magnesium			550	mg/L	1.0	110	80	120			
Potassium			-0.0217	mg/L	1.0		0	0			
Sodium			-0.0164	mg/L	1.0		0	0			
Lab ID:	**ICSAB**	6	Interference Check Sample AB							12/10/15 12:41	
Boron			1.03	mg/L	0.10	103	80	120			
Calcium			485	mg/L	1.0	97	80	120			
Iron			187	mg/L	0.020	94	80	120			
Magnesium			538	mg/L	1.0	108	80	120			
Potassium			19.8	mg/L	1.0	99	80	120			
Sodium			19.5	mg/L	1.0	98	80	120			
Lab ID:	**CCV**	6	Continuing Calibration Verification Standard							12/10/15 14:42	
Boron			2.63	mg/L	0.10	105	90	110			
Calcium			25.8	mg/L	1.0	103	90	110			
Iron			2.54	mg/L	0.020	101	90	110			
Magnesium			25.7	mg/L	1.0	103	90	110			
Potassium			24.8	mg/L	1.0	99	90	110			
Sodium			24.9	mg/L	1.0	99	90	110			
Lab ID:	**ICSA**	6	Interference Check Sample A							12/10/15 16:58	
Boron			0.000480	mg/L	0.10		0	0			
Calcium			470	mg/L	1.0	94	80	120			
Iron			186	mg/L	0.020	93	80	120			
Magnesium			521	mg/L	1.0	104	80	120			
Potassium			-0.0163	mg/L	1.0		0	0			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.7**									Analytical Run: ICP2-HE_151210A	
Lab ID:	**ICSA**	6	Interference Check Sample A							12/10/15 16:58	
Sodium			-0.00381	mg/L	1.0		0	0			
Lab ID:	**ICSAB**	6	Interference Check Sample AB							12/10/15 17:02	
Boron			1.00	mg/L	0.10	100	80	120			
Calcium			481	mg/L	1.0	96	80	120			
Iron			188	mg/L	0.020	94	80	120			
Magnesium			530	mg/L	1.0	106	80	120			
Potassium			20.4	mg/L	1.0	102	80	120			
Sodium			20.3	mg/L	1.0	102	80	120			
Method:	**E200.7**									Batch: 31414	
Lab ID:	**MB-31414**	6	Method Blank				Run: ICP2-HE_151210A			12/10/15 14:50	
Boron			ND	mg/L	0.002						
Calcium			ND	mg/L	0.06						
Iron			ND	mg/L	0.009						
Magnesium			ND	mg/L	0.01						
Potassium			ND	mg/L	0.07						
Sodium			ND	mg/L	0.01						
Lab ID:	**LCS-31414**	6	Laboratory Control Sample				Run: ICP2-HE_151210A			12/10/15 14:54	
Boron			0.540	mg/L	0.050	108	85	115			
Calcium			26.7	mg/L	1.0	107	85	115			
Iron			2.62	mg/L	0.020	105	85	115			
Magnesium			26.5	mg/L	1.0	106	85	115			
Potassium			26.6	mg/L	1.0	106	85	115			
Sodium			26.7	mg/L	1.0	107	85	115			
Lab ID:	**H15120092-001CDIL**	6	Serial Dilution				Run: ICP2-HE_151210A			12/10/15 15:01	
Boron			0.0305	mg/L	0.050		0	0		10	N
Calcium			33.3	mg/L	1.0		0	0	0.5	10	
Iron			0.675	mg/L	0.093		0	0		10	N
Magnesium			8.96	mg/L	1.0		0	0	1.3	10	
Potassium			3.00	mg/L	1.0		0	0		10	N
Sodium			13.1	mg/L	1.0		0	0	1.5	10	
Lab ID:	**H15120092-001CMS3**	6	Sample Matrix Sp ke				Run: ICP2-HE_151210A			12/10/15 15:05	
Boron			1.08	mg/L	0.050	105	70	130			
Calcium			84.3	mg/L	1.0	102	70	130			
Iron			5.79	mg/L	0.020	103	70	130			
Magnesium			60.8	mg/L	1.0	104	70	130			
Potassium			57.3	mg/L	1.0	109	70	130			
Sodium			67.7	mg/L	1.0	110	70	130			
Lab ID:	**H15120092-001CMSD**	6	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_151210A			12/10/15 15:09	
Boron			1.08	mg/L	0.050	105	70	130	0.0	20	
Calcium			83.7	mg/L	1.0	101	70	130	0.8	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: 31414	
Lab ID: H15120092-001CMSD	6	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_151210A			12/10/15 15:09	
Iron		5.77	mg/L	0.020	103	70	130	0.3	20	
Magnesium		60.9	mg/L	1.0	104	70	130	0.2	20	
Potassium		57.2	mg/L	1.0	108	70	130	0.2	20	
Sodium		67.4	mg/L	1.0	109	70	130	0.4	20	
Lab ID: H15120093-008CDIL	6	Serial Dilution				Run: ICP2-HE_151210A			12/10/15 15:58	
Boron		0.0756	mg/L	0.050		0	0		10	N
Calcium		64.3	mg/L	1.0		0	0	1.0	10	
Iron		0.550	mg/L	0.046		0	0	1.5	10	
Magnesium		14.0	mg/L	1.0		0	0	1.4	10	
Potassium		6.29	mg/L	1.0		0	0	7.1	10	
Sodium		33.8	mg/L	1.0		0	0	7.2	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

N - The analyte concentration was not sufficiently high to calculate a RPD for the serial dilution test.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: ICP2-HE_151217A	
Lab ID: ICV	10	Initial Calibration Verification Standard							12/17/15 12:30	
Aluminum		3.95	mg/L	0.10	99	90	110			
Barium		0.778	mg/L	0.10	97	90	110			
Beryllium		0.402	mg/L	0.0010	100	90	110			
Copper		0.783	mg/L	0.010	98	90	110			
Iron		3.93	mg/L	0.020	98	90	110			
Lead		0.779	mg/L	0.019	97	90	110			
Manganese		3.91	mg/L	0.010	98	90	110			
Nickel		0.780	mg/L	0.010	98	90	110			
Vanadium		0.781	mg/L	0.10	98	90	110			
Zinc		0.768	mg/L	0.010	96	90	110			
Lab ID: ICSA	10	Interference Check Sample A							12/17/15 12:45	
Aluminum		521	mg/L	0.10	104	80	120			
Barium		0.00364	mg/L	0.10		0	0			
Beryllium		0.000100	mg/L	0.0010		0	0			
Copper		0.000640	mg/L	0.010		0	0			
Iron		182	mg/L	0.020	91	80	120			
Lead		-0.0332	mg/L	0.019		0	0			
Manganese		-0.00293	mg/L	0.010		0	0			
Nickel		0.00776	mg/L	0.010		0	0			
Vanadium		0.00334	mg/L	0.10		0	0			
Zinc		-0.00182	mg/L	0.010		0	0			
Lab ID: ICSAB	10	Interference Check Sample AB							12/17/15 12:49	
Aluminum		521	mg/L	0.10	104	80	120			
Barium		0.506	mg/L	0.10	101	80	120			
Beryllium		0.487	mg/L	0.0010	97	80	120			
Copper		0.505	mg/L	0.010	101	80	120			
Iron		181	mg/L	0.020	90	80	120			
Lead		0.870	mg/L	0.019	87	80	120			
Manganese		0.471	mg/L	0.010	94	80	120			
Nickel		0.906	mg/L	0.010	91	80	120			
Vanadium		0.476	mg/L	0.10	95	80	120			
Zinc		0.949	mg/L	0.010	95	80	120			
Lab ID: ICSA	10	Interference Check Sample A							12/17/15 16:58	
Aluminum		529	mg/L	0.10	106	80	120			
Barium		0.00490	mg/L	0.10		0	0			
Beryllium		0.000170	mg/L	0.0010		0	0			
Copper		0.00306	mg/L	0.010		0	0			
Iron		179	mg/L	0.020	89	80	120			
Lead		0.00335	mg/L	0.019		0	0			
Manganese		-0.00280	mg/L	0.010		0	0			
Nickel		0.00479	mg/L	0.010		0	0			
Vanadium		-0.00377	mg/L	0.10		0	0			

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Analytical Run: ICP2-HE_151217A	
Lab ID: ICSA	10	Interference Check Sample A							12/17/15 16:58	
Zinc		-0.000340	mg/L	0.010		0	0			
Lab ID: ICSAB	10	Interference Check Sample AB							12/17/15 17:02	
Aluminum		533	mg/L	0.10	107	80	120			
Barium		0.512	mg/L	0.10	102	80	120			
Beryllium		0.492	mg/L	0.0010	98	80	120			
Copper		0.516	mg/L	0.010	103	80	120			
Iron		181	mg/L	0.020	91	80	120			
Lead		0.910	mg/L	0.019	91	80	120			
Manganese		0.478	mg/L	0.010	96	80	120			
Nickel		0.926	mg/L	0.010	93	80	120			
Vanadium		0.484	mg/L	0.10	97	80	120			
Zinc		1.02	mg/L	0.010	102	80	120			

Qualifiers:

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ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_151210A		
Lab ID: ICV STD	19	Initial Calibration Verification Standard								12/10/15 13:38
Aluminum		0.289	mg/L	0.10	96	90	110			
Antimony		0.0603	mg/L	0.050	101	90	110			
Arsenic		0.0601	mg/L	0.0050	100	90	110			
Barium		0.0609	mg/L	0.10	102	90	110			
Beryllium		0.0308	mg/L	0.0010	103	90	110			
Cadmium		0.0314	mg/L	0.0010	105	90	110			
Chromium		0.0611	mg/L	0.010	102	90	110			
Cobalt		0.0613	mg/L	0.010	102	90	110			
Copper		0.0625	mg/L	0.010	104	90	110			
Iron		0.316	mg/L	0.020	105	90	110			
Lead		0.0601	mg/L	0.010	100	90	110			
Manganese		0.308	mg/L	0.010	103	90	110			
Molybdenum		0.0581	mg/L	0.0050	97	90	110			
Nickel		0.0623	mg/L	0.010	104	90	110			
Selenium		0.0614	mg/L	0.0050	102	90	110			
Silver		0.0305	mg/L	0.0050	102	90	110			
Uranium		0.0593	mg/L	0.0010	99	90	110			
Vanadium		0.0602	mg/L	0.10	100	90	110			
Zinc		0.0626	mg/L	0.010	104	90	110			
Lab ID: ICSA	19	Interference Check Sample A								12/10/15 13:42
Aluminum		41.6	mg/L	0.10	104	70	130			
Antimony		0.000310	mg/L	0.050						
Arsenic		0.000135	mg/L	0.0050						
Barium		0.000266	mg/L	0.10						
Beryllium		7.80E-05	mg/L	0.0010						
Cadmium		0.000757	mg/L	0.0010						
Chromium		0.00120	mg/L	0.010						
Cobalt		0.000172	mg/L	0.010						
Copper		7.10E-05	mg/L	0.010						
Iron		107	mg/L	0.020	107	70	130			
Lead		0.000396	mg/L	0.010						
Manganese		0.000997	mg/L	0.010						
Molybdenum		0.892	mg/L	0.0050	111	70	130			
Nickel		0.000594	mg/L	0.010						
Selenium		0.000456	mg/L	0.0050						
Silver		0.000210	mg/L	0.0050						
Uranium		0.000327	mg/L	0.0010						
Vanadium		-0.000413	mg/L	0.10						
Zinc		0.00130	mg/L	0.010						
Lab ID: ICSAB	19	Interference Check Sample AB								12/10/15 13:45
Aluminum		42.1	mg/L	0.10	105	70	130			
Antimony		0.000178	mg/L	0.050		0	0			

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_151210A		
Lab ID: ICSAB	19	Interference Check Sample AB								12/10/15 13:45
Arsenic		0.0114	mg/L	0.0050	114	70	130			
Barium		0.000164	mg/L	0.10		0	0			
Beryllium		4.50E-05	mg/L	0.0010		0	0			
Cadmium		0.0116	mg/L	0.0010	116	70	130			
Chromium		0.0233	mg/L	0.010	117	70	130			
Cobalt		0.0223	mg/L	0.010	111	70	130			
Copper		0.0217	mg/L	0.010	108	70	130			
Iron		108	mg/L	0.020	108	70	130			
Lead		0.000307	mg/L	0.010		0	0			
Manganese		0.0232	mg/L	0.010	116	70	130			
Molybdenum		0.901	mg/L	0.0050	113	70	130			
Nickel		0.0226	mg/L	0.010	113	70	130			
Selenium		0.0118	mg/L	0.0050	118	70	130			
Silver		0.0214	mg/L	0.0050	107	70	130			
Uranium		9.20E-05	mg/L	0.0010		0	0			
Vanadium		0.0219	mg/L	0.10	109	70	130			
Zinc		0.0117	mg/L	0.010	117	70	130			
Lab ID: ICV STD	19	Initial Calibration Verification Standard								12/10/15 17:28
Aluminum		0.286	mg/L	0.10	95	90	110			
Antimony		0.0596	mg/L	0.050	99	90	110			
Arsenic		0.0604	mg/L	0.0050	101	90	110			
Barium		0.0595	mg/L	0.10	99	90	110			
Beryllium		0.0307	mg/L	0.0010	102	90	110			
Cadmium		0.0311	mg/L	0.0010	104	90	110			
Chromium		0.0608	mg/L	0.010	101	90	110			
Cobalt		0.0615	mg/L	0.010	102	90	110			
Copper		0.0631	mg/L	0.010	105	90	110			
Iron		0.313	mg/L	0.020	104	90	110			
Lead		0.0598	mg/L	0.010	100	90	110			
Manganese		0.308	mg/L	0.010	103	90	110			
Molybdenum		0.0576	mg/L	0.0050	96	90	110			
Nickel		0.0626	mg/L	0.010	104	90	110			
Selenium		0.0609	mg/L	0.0050	102	90	110			
Silver		0.0305	mg/L	0.0050	102	90	110			
Uranium		0.0590	mg/L	0.0010	98	90	110			
Vanadium		0.0597	mg/L	0.10	100	90	110			
Zinc		0.0624	mg/L	0.010	104	90	110			
Lab ID: ICSA	19	Interference Check Sample A								12/10/15 17:31
Aluminum		41.6	mg/L	0.10	104	70	130			
Antimony		0.000322	mg/L	0.050						
Arsenic		1.80E-05	mg/L	0.0050						
Barium		0.000224	mg/L	0.10						

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_151210A		
Lab ID: ICSA	19	Interference Check Sample A								12/10/15 17:31
Beryllium		0.000124	mg/L	0.0010						
Cadmium		0.000711	mg/L	0.0010						
Chromium		0.00115	mg/L	0.010						
Cobalt		0.000161	mg/L	0.010						
Copper		0.000234	mg/L	0.010						
Iron		109	mg/L	0.020	109	70	130			
Lead		0.000383	mg/L	0.010						
Manganese		0.000905	mg/L	0.010						
Molybdenum		0.896	mg/L	0.0050	112	70	130			
Nickel		0.000802	mg/L	0.010						
Selenium		0.000230	mg/L	0.0050						
Silver		0.000156	mg/L	0.0050						
Uranium		0.000303	mg/L	0.0010						
Vanadium		-0.00170	mg/L	0.10						
Zinc		0.00142	mg/L	0.010						
Lab ID: ICSAB	19	Interference Check Sample AB								12/10/15 17:34
Aluminum		42.2	mg/L	0.10	106	70	130			
Antimony		0.000145	mg/L	0.050		0	0			
Arsenic		0.0111	mg/L	0.0050	111	70	130			
Barium		0.000161	mg/L	0.10		0	0			
Beryllium		3.00E-05	mg/L	0.0010		0	0			
Cadmium		0.0114	mg/L	0.0010	114	70	130			
Chromium		0.0230	mg/L	0.010	115	70	130			
Cobalt		0.0222	mg/L	0.010	111	70	130			
Copper		0.0218	mg/L	0.010	109	70	130			
Iron		108	mg/L	0.020	107	70	130			
Lead		0.000312	mg/L	0.010		0	0			
Manganese		0.0226	mg/L	0.010	113	70	130			
Molybdenum		0.896	mg/L	0.0050	112	70	130			
Nickel		0.0228	mg/L	0.010	114	70	130			
Selenium		0.0110	mg/L	0.0050	110	70	130			
Silver		0.0206	mg/L	0.0050	103	70	130			
Uranium		0.000108	mg/L	0.0010		0	0			
Vanadium		0.0208	mg/L	0.10	104	70	130			
Zinc		0.0117	mg/L	0.010	117	70	130			
Method: E200.8										Batch: 31414
Lab ID: MB-31414	24	Method Blank				Run: ICPMS204-B_151210A				12/10/15 16:00
Aluminum		0.002	mg/L	0.002						
Antimony		0.0003	mg/L	6E-05						
Arsenic		0.0005	mg/L	6E-05						
Barium		0.0003	mg/L	0.0001						
Beryllium		ND	mg/L	0.0003						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 31414
Lab ID: MB-31414	24	Method Blank				Run: ICPMS204-B_151210A				12/10/15 16:00
Boron		0.003	mg/L	0.002						
Cadmium		0.0001	mg/L	1E-05						
Calcium		0.1	mg/L	0.008						
Chromium		0.0002	mg/L	0.0001						
Cobalt		0.0001	mg/L	3E-05						
Copper		0.0002	mg/L	0.0002						
Iron		0.007	mg/L	0.002						
Lead		0.0001	mg/L	3E-05						
Magnesium		0.02	mg/L	0.006						
Manganese		0.0004	mg/L	0.0002						
Molybdenum		0.0002	mg/L	4E-05						
Nickel		ND	mg/L	3E-05						
Potassium		0.05	mg/L	0.02						
Selenium		ND	mg/L	0.0004						
Silver		0.0005	mg/L	5E-05						
Sodium		0.2	mg/L	0.004						
Uranium		0.0002	mg/L	5E-05						
Vanadium		0.002	mg/L	0.0001						
Zinc		0.002	mg/L	0.002						
Lab ID: LCS-31414	24	Laboratory Control Sample				Run: ICPMS204-B_151210A				12/10/15 16:03
Aluminum		2.45	mg/L	0.030	98	85	115			
Antimony		0.526	mg/L	0.0010	105	85	115			
Arsenic		0.522	mg/L	0.0010	104	85	115			
Barium		0.521	mg/L	0.050	104	85	115			
Beryllium		0.240	mg/L	0.0010	96	85	115			
Boron		0.484	mg/L	0.050	96	85	115			
Cadmium		0.258	mg/L	0.0010	103	85	115			
Calcium		27.2	mg/L	1.0	108	85	115			
Chromium		0.518	mg/L	0.0050	104	85	115			
Cobalt		0.513	mg/L	0.0050	103	85	115			
Copper		0.494	mg/L	0.0050	99	85	115			
Iron		2.55	mg/L	0.020	102	85	115			
Lead		0.514	mg/L	0.0010	103	85	115			
Magnesium		25.8	mg/L	1.0	103	85	115			
Manganese		2.55	mg/L	0.0010	102	85	115			
Molybdenum		0.512	mg/L	0.0010	102	85	115			
Nickel		0.502	mg/L	0.0050	100	85	115			
Potassium		26.9	mg/L	1.0	107	85	115			
Selenium		0.512	mg/L	0.0010	102	85	115			
Silver		0.0520	mg/L	0.0010	103	85	115			
Sodium		25.8	mg/L	1.0	102	85	115			
Uranium		0.504	mg/L	0.00030	101	85	115			
Vanadium		0.528	mg/L	0.010	105	85	115			

Qualifiers:

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QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 31414
Lab ID: LCS-31414	24	Laboratory Control Sample				Run: ICPMS204-B_151210A				12/10/15 16:03
Zinc		0.504	mg/L	0.010	100	85	115			
Lab ID: H15120092-001CMS3	24	Sample Matrix Sp ke				Run: ICPMS204-B_151210A				12/10/15 16:15
Aluminum		5.12	mg/L	0.030	98	70	130			
Antimony		1.06	mg/L	0.0010	106	70	130			
Arsenic		1.04	mg/L	0.0010	103	70	130			
Barium		1.10	mg/L	0.050	104	70	130			
Beryllium		0.478	mg/L	0.0010	96	70	130			
Boron		1.01	mg/L	0.050	98	70	130			
Cadmium		0.510	mg/L	0.0010	102	70	130			
Calcium		86.1	mg/L	1.0	105	70	130			
Chromium		1.03	mg/L	0.0050	103	70	130			
Cobalt		1.01	mg/L	0.0050	101	70	130			
Copper		0.990	mg/L	0.0050	99	70	130			
Iron		5.69	mg/L	0.020	101	70	130			
Lead		1.02	mg/L	0.0010	102	70	130			
Magnesium		59.9	mg/L	1.0	101	70	130			
Manganese		5.09	mg/L	0.0010	100	70	130			
Molybdenum		1.03	mg/L	0.0010	103	70	130			
Nickel		0.993	mg/L	0.0050	99	70	130			
Potassium		55.8	mg/L	1.0	105	70	130			
Selenium		1.01	mg/L	0.0010	101	70	130			
Silver		0.102	mg/L	0.0010	101	70	130			
Sodium		63.0	mg/L	1.0	101	70	130			
Uranium		1.01	mg/L	0.00030	101	70	130			
Vanadium		1.05	mg/L	0.010	104	70	130			
Zinc		0.998	mg/L	0.010	99	70	130			
Lab ID: H15120092-001CMSD	24	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_151210A				12/10/15 16:18
Aluminum		5.19	mg/L	0.030	99	70	130	1.3	20	
Antimony		1.07	mg/L	0.0010	107	70	130	0.5	20	
Arsenic		1.05	mg/L	0.0010	105	70	130	1.2	20	
Barium		1.11	mg/L	0.050	105	70	130	1.1	20	
Beryllium		0.482	mg/L	0.0010	96	70	130	0.9	20	
Boron		1.03	mg/L	0.050	100	70	130	1.5	20	
Cadmium		0.517	mg/L	0.0010	103	70	130	1.3	20	
Calcium		88.4	mg/L	1.0	110	70	130	2.6	20	
Chromium		1.05	mg/L	0.0050	105	70	130	1.6	20	
Cobalt		1.03	mg/L	0.0050	103	70	130	1.4	20	
Copper		0.998	mg/L	0.0050	99	70	130	0.7	20	
Iron		5.74	mg/L	0.020	102	70	130	0.9	20	
Lead		1.04	mg/L	0.0010	104	70	130	1.8	20	
Magnesium		60.2	mg/L	1.0	102	70	130	0.6	20	
Manganese		5.20	mg/L	0.0010	102	70	130	2.2	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: 31414
Lab ID: H15120092-001CMSD	24	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_151210A			12/10/15 16:18	
Molybdenum		1.06	mg/L	0.0010	105	70	130	2.3	20	
Nickel		1.01	mg/L	0.0050	101	70	130	1.5	20	
Potassium		56.8	mg/L	1.0	107	70	130	1.8	20	
Selenium		1.02	mg/L	0.0010	102	70	130	0.6	20	
Silver		0.103	mg/L	0.0010	103	70	130	1.7	20	
Sodium		63.9	mg/L	1.0	103	70	130	1.4	20	
Uranium		1.04	mg/L	0.00030	103	70	130	2.4	20	
Vanadium		1.07	mg/L	0.010	106	70	130	1.8	20	
Zinc		1.01	mg/L	0.010	100	70	130	0.8	20	
Method: E200.8										Batch: R111621
Lab ID: ICB	18	Method Blank				Run: ICPMS204-B_151210A			12/10/15 14:41	
Aluminum		0.004	mg/L	0.0008						
Antimony		ND	mg/L	4E-05						
Arsenic		ND	mg/L	6E-05						
Barium		0.0007	mg/L	8E-05						
Beryllium		ND	mg/L	0.0002						
Chromium		ND	mg/L	3E-05						
Cobalt		ND	mg/L	3E-05						
Copper		0.0002	mg/L	6E-05						
Iron		0.006	mg/L	0.0006						
Lead		8E-05	mg/L	3E-05						
Manganese		0.0003	mg/L	4E-05						
Molybdenum		4E-05	mg/L	3E-05						
Nickel		ND	mg/L	3E-05						
Selenium		ND	mg/L	0.0002						
Silver		ND	mg/L	3E-05						
Uranium		2E-05	mg/L	1.0E-05						
Vanadium		0.0004	mg/L	3E-05						
Zinc		0.002	mg/L	0.0001						
Lab ID: LFB	18	Laboratory Fortified Blank				Run: ICPMS204-B_151210A			12/10/15 14:44	
Aluminum		0.0553	mg/L	0.10	103	85	115			
Antimony		0.0480	mg/L	0.050	96	85	115			
Arsenic		0.0518	mg/L	0.0050	104	85	115			
Barium		0.0506	mg/L	0.10	100	85	115			
Beryllium		0.0499	mg/L	0.0010	100	85	115			
Chromium		0.0509	mg/L	0.010	102	85	115			
Cobalt		0.0515	mg/L	0.010	103	85	115			
Copper		0.0521	mg/L	0.010	104	85	115			
Iron		0.162	mg/L	0.020	104	85	115			
Lead		0.0507	mg/L	0.010	101	85	115			
Manganese		0.0520	mg/L	0.010	103	85	115			
Molybdenum		0.0486	mg/L	0.0050	97	85	115			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R111621
Lab ID: LFB	18	Laboratory Fortified Blank				Run: ICPMS204-B_151210A				12/10/15 14:44
Nickel		0.0519	mg/L	0.010	104	85	115			
Selenium		0.0550	mg/L	0.0050	110	85	115			
Silver		0.0203	mg/L	0.0050	102	85	115			
Uranium		0.0470	mg/L	0.0010	94	85	115			
Vanadium		0.0505	mg/L	0.10	100	85	115			
Zinc		0.0554	mg/L	0.010	107	85	115			
Lab ID: H15120092-001BMS	18	Sample Matrix Sp ke				Run: ICPMS204-B_151210A				12/10/15 15:50
Aluminum		0.0515	mg/L	0.030	98	70	130			
Antimony		0.0489	mg/L	0.0010	98	70	130			
Arsenic		0.0534	mg/L	0.0010	104	70	130			
Barium		0.102	mg/L	0.050	103	70	130			
Beryllium		0.0451	mg/L	0.0010	90	70	130			
Chromium		0.0499	mg/L	0.0050	100	70	130			
Cobalt		0.0503	mg/L	0.0050	100	70	130			
Copper		0.0513	mg/L	0.0050	101	70	130			
Iron		0.241	mg/L	0.020	104	70	130			
Lead		0.0504	mg/L	0.0010	101	70	130			
Manganese		0.108	mg/L	0.0010	103	70	130			
Molybdenum		0.0539	mg/L	0.0010	99	70	130			
Nickel		0.0503	mg/L	0.0050	101	70	130			
Selenium		0.0538	mg/L	0.0010	107	70	130			
Silver		0.0178	mg/L	0.0010	89	70	130			
Uranium		0.0501	mg/L	0.00030	94	70	130			
Vanadium		0.0517	mg/L	0.010	100	70	130			
Zinc		0.0567	mg/L	0.010	103	70	130			
Lab ID: H15120092-001BMSD	18	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_151210A				12/10/15 15:53
Aluminum		0.0518	mg/L	0.030	99	70	130	0.6	20	
Antimony		0.0494	mg/L	0.0010	98	70	130	0.9	20	
Arsenic		0.0541	mg/L	0.0010	105	70	130	1.4	20	
Barium		0.102	mg/L	0.050	103	70	130	0.0	20	
Beryllium		0.0456	mg/L	0.0010	91	70	130	1.2	20	
Chromium		0.0502	mg/L	0.0050	100	70	130	0.5	20	
Cobalt		0.0505	mg/L	0.0050	101	70	130	0.4	20	
Copper		0.0522	mg/L	0.0050	102	70	130	1.7	20	
Iron		0.244	mg/L	0.020	106	70	130	1.2	20	
Lead		0.0507	mg/L	0.0010	101	70	130	0.7	20	
Manganese		0.108	mg/L	0.0010	104	70	130	0.4	20	
Molybdenum		0.0536	mg/L	0.0010	99	70	130	0.7	20	
Nickel		0.0501	mg/L	0.0050	100	70	130	0.3	20	
Selenium		0.0547	mg/L	0.0010	108	70	130	1.6	20	
Silver		0.0188	mg/L	0.0010	94	70	130	5.6	20	
Uranium		0.0505	mg/L	0.00030	95	70	130	0.9	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8										Batch: R111621
Lab ID: H15120092-001BMSD	18	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_151210A			12/10/15 15:53	
Vanadium		0.0518	mg/L	0.010	100	70	130	0.1	20	
Zinc		0.0574	mg/L	0.010	104	70	130	1.1	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Analytical Run: ICPMS204-B_151214B		
Lab ID: ICV STD	7	Initial Calibration Verification Standard								12/15/15 02:29
Arsenic		0.0603	mg/L	0.0050	101	90	110			
Beryllium		0.0307	mg/L	0.0010	102	90	110			
Cadmium		0.0312	mg/L	0.0010	104	90	110			
Lead		0.0603	mg/L	0.010	100	90	110			
Manganese		0.308	mg/L	0.010	103	90	110			
Silver		0.0310	mg/L	0.0050	103	90	110			
Uranium		0.0595	mg/L	0.0010	99	90	110			
Lab ID: ICSA	7	Interference Check Sample A								12/15/15 02:32
Arsenic		0.000274	mg/L	0.0050						
Beryllium		0.000111	mg/L	0.0010						
Cadmium		0.000537	mg/L	0.0010						
Lead		0.000397	mg/L	0.010						
Manganese		0.000951	mg/L	0.010						
Silver		0.000292	mg/L	0.0050						
Uranium		0.000326	mg/L	0.0010						
Lab ID: ICSAB	7	Interference Check Sample AB								12/15/15 02:35
Arsenic		0.0108	mg/L	0.0050	108	70	130			
Beryllium		4.10E-05	mg/L	0.0010		0	0			
Cadmium		0.0107	mg/L	0.0010	107	70	130			
Lead		0.000234	mg/L	0.010		0	0			
Manganese		0.0211	mg/L	0.010	106	70	130			
Silver		0.0196	mg/L	0.0050	98	70	130			
Uranium		6.40E-05	mg/L	0.0010		0	0			
Method: E200.8										Batch: 31414
Lab ID: MB-31414	24	Method Blank				Run: ICPMS204-B_151214B				12/15/15 03:30
Aluminum		ND	mg/L	0.002						
Antimony		ND	mg/L	6E-05						
Arsenic		8E-05	mg/L	6E-05						
Barium		0.0001	mg/L	0.0001						
Beryllium		ND	mg/L	0.0003						
Boron		ND	mg/L	0.002						
Cadmium		ND	mg/L	1E-05						
Calcium		0.1	mg/L	0.008						
Chromium		ND	mg/L	0.0001						
Cobalt		ND	mg/L	3E-05						
Copper		ND	mg/L	0.0002						
Iron		ND	mg/L	0.002						
Lead		ND	mg/L	3E-05						
Magnesium		0.03	mg/L	0.006						
Manganese		ND	mg/L	0.0002						
Molybdenum		ND	mg/L	4E-05						
Nickel		ND	mg/L	3E-05						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.8**										Batch: 31414
Lab ID:	**MB-31414**	24	Method Blank				Run: ICPMS204-B_151214B				12/15/15 03:30
Potassium			0.02	mg/L	0.02						
Selenium			0.0004	mg/L	0.0004						
Silver			0.0002	mg/L	5E-05						
Sodium			0.06	mg/L	0.004						
Uranium			ND	mg/L	5E-05						
Vanadium			0.0008	mg/L	0.0001						
Zinc			ND	mg/L	0.002						
Method:	**E200.8**										Batch: R111723
Lab ID:	**ICB**	5	Method Blank				Run: ICPMS204-B_151214B				12/15/15 02:51
Arsenic			9E-05	mg/L	6E-05						
Beryllium			ND	mg/L	0.0002						
Cadmium			ND	mg/L	2E-05						
Manganese			ND	mg/L	4E-05						
Uranium			ND	mg/L	1.0E-05						
Lab ID:	**LFB**	5	Laboratory Fortified Blank				Run: ICPMS204-B_151214B				12/15/15 02:55
Arsenic			0.0506	mg/L	0.0050	101	85	115			
Beryllium			0.0494	mg/L	0.0010	99	85	115			
Cadmium			0.0501	mg/L	0.0010	100	85	115			
Manganese			0.0516	mg/L	0.010	103	85	115			
Uranium			0.0482	mg/L	0.0010	96	85	115			
Lab ID:	**H15120092-002BMS**	5	Sample Matrix Sp ke				Run: ICPMS204-B_151214B				12/15/15 03:40
Arsenic			0.0551	mg/L	0.0010	105	70	130			
Beryllium			0.0491	mg/L	0.0010	98	70	130			
Cadmium			0.0510	mg/L	0.0010	102	70	130			
Manganese			0.181	mg/L	0.0010	103	70	130			
Uranium			0.0527	mg/L	0.00030	97	70	130			
Lab ID:	**H15120092-002BMSD**	5	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_151214B				12/15/15 03:43
Arsenic			0.0555	mg/L	0.0010	105	70	130	0.8	20	
Beryllium			0.0500	mg/L	0.0010	100	70	130	1.8	20	
Cadmium			0.0512	mg/L	0.0010	102	70	130	0.5	20	
Manganese			0.182	mg/L	0.0010	103	70	130	0.1	20	
Uranium			0.0530	mg/L	0.00030	98	70	130	0.6	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.8**								Analytical Run: ICPMS204-B_151216A		
Lab ID:	**ICV STD**		Initial Calibration Verification Standard							12/16/15 19:05	
Copper			0.0618	mg/L	0.010	103	90	110			
Lab ID:	**ICSA**		Interference Check Sample A							12/16/15 19:08	
Copper			-0.00250	mg/L	0.010						
Lab ID:	**ICSAB**		Interference Check Sample AB							12/16/15 19:11	
Copper			0.0168	mg/L	0.010	84	70	130			
Lab ID:	**ICV STD**		Initial Calibration Verification Standard							12/16/15 23:28	
Copper			0.0616	mg/L	0.010	103	90	110			
Lab ID:	**ICSA**		Interference Check Sample A							12/16/15 23:31	
Copper			-0.000522	mg/L	0.010						
Lab ID:	**ICSAB**		Interference Check Sample AB							12/16/15 23:34	
Copper			0.0178	mg/L	0.010	89	70	130			
Method:	**E200.8**									Batch: 31414	
Lab ID:	**MB-31414**	24	Method Blank				Run: ICPMS204-B_151216A			12/16/15 19:53	
Aluminum			ND	mg/L	0.002						
Antimony			ND	mg/L	6E-05						
Arsenic			ND	mg/L	6E-05						
Barium			ND	mg/L	0.0001						
Beryllium			ND	mg/L	0.0003						
Boron			ND	mg/L	0.002						
Cadmium			ND	mg/L	1E-05						
Calcium			ND	mg/L	0.008						
Chromium			ND	mg/L	0.0001						
Cobalt			ND	mg/L	3E-05						
Copper			ND	mg/L	0.0002						
Iron			ND	mg/L	0.002						
Lead			ND	mg/L	3E-05						
Magnesium			ND	mg/L	0.006						
Manganese			ND	mg/L	0.0002						
Molybdenum			ND	mg/L	4E-05						
Nickel			ND	mg/L	3E-05						
Potassium			ND	mg/L	0.02						
Selenium			ND	mg/L	0.0004						
Silver			ND	mg/L	5E-05						
Sodium			ND	mg/L	0.004						
Uranium			ND	mg/L	5E-05						
Vanadium			ND	mg/L	0.0001						
Zinc			ND	mg/L	0.002						
Method:	**E200.8**									Batch: R111742	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **E200.8**										Batch: R111742
Lab ID: **ICB**		Method Blank				Run: ICPMS204-B_151216A				12/16/15 19:31
Copper		ND	mg/L	6E-05						
Lab ID: **LFB**		Laboratory Fortified Blank				Run: ICPMS204-B_151216A				12/16/15 19:34
Copper		0.0516	mg/L	0.010	103	85	115			
Lab ID: **H15120092-001BMS**		Sample Matrix Sp ke				Run: ICPMS204-B_151216A				12/16/15 23:56
Copper		0.0506	mg/L	0.0050	101	70	130			
Lab ID: **H15120092-001BMSD**		Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_151216A				12/17/15 00:00
Copper		0.0509	mg/L	0.0050	102	70	130	0.6	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.8**								Analytical Run: ICPMS204-B_151217B		
Lab ID:	**ICV STD**	2	Initial Calibration Verification Standard							12/17/15 23:03	
Copper			0.0617	mg/L	0.010	103	90	110			
Iron			0.308	mg/L	0.020	103	90	110			
Lab ID:	**ICSA**	2	Interference Check Sample A							12/17/15 23:06	
Copper			-0.000157	mg/L	0.010						
Iron			99.4	mg/L	0.020	99	70	130			
Lab ID:	**ICSAB**	2	Interference Check Sample AB							12/17/15 23:09	
Copper			0.0193	mg/L	0.010	97	70	130			
Iron			98.1	mg/L	0.020	98	70	130			
Method:	**E200.8**									Batch: 31414	
Lab ID:	**MB-31414**	24	Method Blank				Run: ICPMS204-B_151217B			12/18/15 10:01	
Aluminum			ND	mg/L	0.002						
Antimony			0.0001	mg/L	6E-05						
Arsenic			ND	mg/L	6E-05						
Barium			ND	mg/L	0.0001						
Beryllium			ND	mg/L	0.0003						
Boron			ND	mg/L	0.002						
Cadmium			ND	mg/L	1E-05						
Calcium			ND	mg/L	0.008						
Chromium			ND	mg/L	0.0001						
Cobalt			ND	mg/L	3E-05						
Copper			ND	mg/L	0.0002						
Iron			0.002	mg/L	0.002						
Lead			4E-05	mg/L	3E-05						
Magnesium			ND	mg/L	0.006						
Manganese			ND	mg/L	0.0002						
Molybdenum			4E-05	mg/L	4E-05						
Nickel			ND	mg/L	3E-05						
Potassium			ND	mg/L	0.02						
Selenium			ND	mg/L	0.0004						
Silver			0.0003	mg/L	5E-05						
Sodium			ND	mg/L	0.004						
Uranium			ND	mg/L	5E-05						
Vanadium			0.0002	mg/L	0.0001						
Zinc			ND	mg/L	0.002						
Method:	**E200.8**									Batch: R111789	
Lab ID:	**ICB**	2	Method Blank				Run: ICPMS204-B_151217B			12/18/15 09:38	
Copper			ND	mg/L	6E-05						
Iron			ND	mg/L	0.0006						
Lab ID:	**LFB**	2	Laboratory Fortified Blank				Run: ICPMS204-B_151217B			12/18/15 09:42	
Copper			0.0491	mg/L	0.010	98	85	115			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E200.8**									Batch: R111789	
Lab ID:	**LFB**	2	Laboratory Fortified Blank				Run: ICPMS204-B_151217B			12/18/15 09:42	
Iron			0.146	mg/L	0.020	97	85	115			
Lab ID:	**H15120092-001BMS**	2	Sample Matrix Sp ke				Run: ICPMS204-B_151217B			12/18/15 09:51	
Copper			0.0497	mg/L	0.0050	98	70	130			
Iron			0.225	mg/L	0.020	99	70	130			
Lab ID:	**H15120092-001BMSD**	2	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_151217B			12/18/15 09:55	
Copper			0.0506	mg/L	0.0050	100	70	130	1.7	20	
Iron			0.228	mg/L	0.020	101	70	130	1.3	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **E245.1**									Analytical Run: SUB-B253629	
Lab ID: **ICV**		Initial Calibration Verification Standard							12/10/15 15:08	
Mercury		0.000188	mg/L	1.0E-05	94	90	110			
Method: **E245.1**									Batch: B_95481	
Lab ID: **MB-95481**		Method Blank				Run: SUB-B253629			12/10/15 15:16	
Mercury		1E-06	mg/L	1E-06						
Lab ID: **LCS-95481**		Laboratory Control Sample				Run: SUB-B253629			12/10/15 15:18	
Mercury		0.000188	mg/L	1.0E-05	93	85	115			
Lab ID: **B15120764-001CMS**		Sample Matrix Sp ke				Run: SUB-B253629			12/10/15 15:43	
Mercury		0.000177	mg/L	1.0E-05	89	70	130			
Lab ID: **B15120764-001CMSD**		Sample Matrix Sp ke Duplicate				Run: SUB-B253629			12/10/15 15:48	
Mercury		0.000192	mg/L	1.0E-05	96	70	130	8.1	30	
Lab ID: **H15120093-009C**		Sample Matrix Sp ke				Run: SUB-B253629			12/10/15 16:24	
Mercury		0.000203	mg/L	1.0E-05	95	70	130			
Lab ID: **H15120093-009C**		Sample Matrix Sp ke Duplicate				Run: SUB-B253629			12/10/15 16:26	
Mercury		0.000205	mg/L	1.0E-05	96	70	130	1.0	30	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E245.1**									Analytical Run: SUB-B253692	
Lab ID:	**ICV**		Initial Calibration Verification Standard							12/11/15 14:02	
Mercury			0.000205	mg/L	1.0E-05	103	90	110			
Method:	**E245.1**									Batch: B_95480	
Lab ID:	**MB-95480**		Method Blank				Run: SUB-B253692			12/11/15 14:12	
Mercury			1E-06	mg/L	1E-06						
Lab ID:	**LCS-95480**		Laboratory Control Sample				Run: SUB-B253692			12/11/15 14:14	
Mercury			0.000209	mg/L	1.0E-05	104	85	115			
Lab ID:	**B15120764-002BMS**		Sample Matrix Sp ke				Run: SUB-B253692			12/11/15 14:22	
Mercury			0.000206	mg/L	1.0E-05	102	70	130			
Lab ID:	**B15120764-002BMSD**		Sample Matrix Sp ke Duplicate				Run: SUB-B253692			12/11/15 14:24	
Mercury			0.000206	mg/L	1.0E-05	102	70	130	0.0	30	
Lab ID:	**H15120093-017B**		Sample Matrix Sp ke				Run: SUB-B253692			12/11/15 15:17	
Mercury			0.000206	mg/L	1.0E-05	102	70	130			
Lab ID:	**H15120093-017B**		Sample Matrix Sp ke Duplicate				Run: SUB-B253692			12/11/15 15:20	
Mercury			0.000206	mg/L	1.0E-05	102	70	130	0.0	30	
Method:	**E245.1**									Batch: B_95524	
Lab ID:	**MB-95524**		Method Blank				Run: SUB-B253692			12/11/15 15:28	
Mercury			1E-06	mg/L	1E-06						
Lab ID:	**LCS-95524**		Laboratory Control Sample				Run: SUB-B253692			12/11/15 15:32	
Mercury			0.000191	mg/L	1.0E-05	95	85	115			
Lab ID:	**H15120093-004C**		Sample Matrix Sp ke				Run: SUB-B253692			12/11/15 15:55	
Mercury			0.000211	mg/L	1.0E-05	95	70	130			
Lab ID:	**H15120093-004C**		Sample Matrix Sp ke Duplicate				Run: SUB-B253692			12/11/15 15:57	
Mercury			0.000207	mg/L	1.0E-05	93	70	130	1.9	30	
Lab ID:	**H15120093-015C**		Sample Matrix Sp ke				Run: SUB-B253692			12/11/15 16:33	
Mercury			0.000207	mg/L	1.0E-05	98	70	130			
Lab ID:	**H15120093-015C**		Sample Matrix Sp ke Duplicate				Run: SUB-B253692			12/11/15 16:35	
Mercury			0.000280	mg/L	1.0E-05	135	70	130	30	30	S

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**E300.0**									Analytical Run: IC102-H_151208A	
Lab ID:	**ICV**	2	Initial Calibration Verification Standard							12/08/15 16:00	
Chloride			104	mg/L	1.0	104	90	110			
Sulfate			398	mg/L	1.0	99	90	110			
Lab ID:	**CCV120815-1**	2	Continuing Calibration Verification Standard							12/08/15 16:22	
Chloride			104	mg/L	1.0	104	90	110			
Sulfate			396	mg/L	1.0	99	90	110			
Method:	**E300.0**									Batch: R111543	
Lab ID:	**ICB**	2	Method Blank				Run: IC102-H_151208A			12/08/15 15:49	
Chloride			0.02	mg/L	0.009						
Sulfate			ND	mg/L	0.02						
Lab ID:	**LFB**	2	Laboratory Fortified Blank				Run: IC102-H_151208A			12/08/15 16:11	
Chloride			48.3	mg/L	1.0	97	90	110			
Sulfate			184	mg/L	1.0	92	90	110			
Lab ID:	**H15120093-007AMS**	2	Sample Matrix Sp ke				Run: IC102-H_151208A			12/08/15 18:47	
Chloride			81.5	mg/L	1.0	98	90	110			
Sulfate			274	mg/L	1.0	94	90	110			
Lab ID:	**H15120093-007AMSD**	2	Sample Matrix Sp ke Duplicate				Run: IC102-H_151208A			12/08/15 18:58	
Chloride			84.1	mg/L	1.0	103	90	110	3.2	20	
Sulfate			290	mg/L	1.0	102	90	110	5.5	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E350.1									Analytical Run: FIA203-HE_151209B	
Lab ID: ICV	Initial Calibration Verification Standard								12/09/15 13:57	
Nitrogen, Ammonia as N		8.98	mg/L	0.25	97	90	110			
Lab ID: CCV	Continuing Calibration Verification Standard								12/09/15 14:00	
Nitrogen, Ammonia as N		0.484	mg/L	0.050	97	90	110			
Lab ID: ICB	Initial Calibration Blank, Instrument Blank								12/09/15 14:01	
Nitrogen, Ammonia as N		0.0179	mg/L	0.050		0	0			
Method: E350.1									Batch: R111563	
Lab ID: LFB	Laboratory Fortified Blank					Run: FIA203-HE_151209B			12/09/15 13:58	
Nitrogen, Ammonia as N		0.907	mg/L	0.055	91	90	110			
Lab ID: H15120093-002DMS	Sample Matrix Sp ke					Run: FIA203-HE_151209B			12/09/15 14:09	
Nitrogen, Ammonia as N		0.864	mg/L	0.055	86	80	120			
Lab ID: H15120093-002DMSD	Sample Matrix Sp ke Duplicate					Run: FIA203-HE_151209B			12/09/15 14:10	
Nitrogen, Ammonia as N		0.889	mg/L	0.055	89	80	120	2.8	10	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2									Analytical Run: FIA203-HE_151208B	
Lab ID: ICV		Initial Calibration Verification Standard							12/08/15 09:03	
Nitrogen, Nitrate+Nitrite as N		1.03	mg/L	0.010	103	90	110			
Lab ID: ICB		Initial Calibration Blank, Instrument Blank							12/08/15 09:04	
Nitrogen, Nitrate+Nitrite as N		-0.0148	mg/L	0.010		0	0			
Lab ID: ICV		Initial Calibration Verification Standard							12/08/15 10:28	
Nitrogen, Nitrate+Nitrite as N		1.03	mg/L	0.010	103	90	110			
Lab ID: ICB		Initial Calibration Blank, Instrument Blank							12/08/15 10:30	
Nitrogen, Nitrate+Nitrite as N		-0.00965	mg/L	0.010		0	0			
Method: E353.2									Batch: R111531	
Lab ID: LFB		Laboratory Fortified Blank				Run: FIA203-HE_151208B			12/08/15 09:05	
Nitrogen, Nitrate+Nitrite as N		0.934	mg/L	0.011	93	90	110			
Lab ID: H15120091-001BMS		Sample Matrix Sp ke				Run: FIA203-HE_151208B			12/08/15 09:08	
Nitrogen, Nitrate+Nitrite as N		0.974	mg/L	0.011	96	90	110			
Lab ID: H15120091-001BMSD		Sample Matrix Sp ke Duplicate				Run: FIA203-HE_151208B			12/08/15 09:09	
Nitrogen, Nitrate+Nitrite as N		0.940	mg/L	0.011	93	90	110	3.6	20	
Lab ID: LFB		Laboratory Fortified Blank				Run: FIA203-HE_151208B			12/08/15 10:31	
Nitrogen, Nitrate+Nitrite as N		0.934	mg/L	0.011	93	90	110			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E365.1									Analytical Run: FIA202-HE_151208B	
Lab ID: ICV		Initial Calibration Verification Standard							12/08/15 12:13	
Phosphorus, Total as P		0.235	mg/L	0.010	94	90	110			
Lab ID: CCV		Continuing Calibration Verification Standard							12/08/15 12:14	
Phosphorus, Total as P		0.0962	mg/L	0.010	96	90	110			
Lab ID: ICB		Initial Calibration Blank, Instrument Blank							12/08/15 12:15	
Phosphorus, Total as P		-0.00436	mg/L	0.010		0	0			
Method: E365.1										Batch: 31423
Lab ID: LCS-31423		Laboratory Control Sample				Run: FIA202-HE_151208B			12/08/15 12:16	
Phosphorus, Total as P		0.386	mg/L	0.010	96	90	110			
Lab ID: MB-31423		Method Blank				Run: FIA202-HE_151208B			12/08/15 12:17	
Phosphorus, Total as P		ND	mg/L	0.001						
Lab ID: H15120092-001Dms		Sample Matrix Sp ke				Run: FIA202-HE_151208B			12/08/15 12:20	
Phosphorus, Total as P		0.283	mg/L	0.010	99	90	110			
Lab ID: H15120092-001Dmsd		Sample Matrix Sp ke Duplicate				Run: FIA202-HE_151208B			12/08/15 12:21	
Phosphorus, Total as P		0.276	mg/L	0.010	96	90	110	2.3	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B										Batch: 31476
Lab ID: MB-31476	10	Method Blank				Run: ICP2-HE_151217A				12/17/15 14:33
Aluminum		0.9	mg/kg	0.7						
Barium		0.1	mg/kg	0.02						
Beryllium		ND	mg/kg	0.010						
Copper		ND	mg/kg	0.2						
Iron		2	mg/kg	0.6						
Lead		1	mg/kg	0.7						
Manganese		0.03	mg/kg	0.02						
Nickel		ND	mg/kg	0.08						
Vanadium		ND	mg/kg	0.2						
Zinc		0.3	mg/kg	0.1						
Lab ID: LFB-31476	10	Laboratory Fortified Blank				Run: ICP2-HE_151217A				12/17/15 14:37
Aluminum		258	mg/kg	5.0	104	80	120			
Barium		51.9	mg/kg	1.0	105	80	120			
Beryllium		26.6	mg/kg	1.0	107	80	120			
Copper		51.4	mg/kg	1.0	104	80	120			
Iron		259	mg/kg	5.0	104	80	120			
Lead		50.4	mg/kg	1.0	99	80	120			
Manganese		257	mg/kg	1.0	104	80	120			
Nickel		50.7	mg/kg	1.0	102	80	120			
Vanadium		51.1	mg/kg	1.0	103	80	120			
Zinc		49.5	mg/kg	1.0	99	80	120			
Lab ID: LCS-31476	10	Laboratory Control Sample				Run: ICP2-HE_151217A				12/17/15 14:41
Aluminum		9970	mg/kg	5.0	101	46.3	130.2			
Barium		177	mg/kg	1.0	95	78.6	112.8			
Beryllium		83.8	mg/kg	1.0	100	76.2	108			
Copper		127	mg/kg	1.2	93	76.6	108.8			
Iron		16400	mg/kg	5.0	100	51.7	131.9			
Lead		109	mg/kg	3.3	103	74.4	108.6			
Manganese		457	mg/kg	1.0	105	81.1	116.6			
Nickel		80.1	mg/kg	1.0	93	72.3	105			
Vanadium		113	mg/kg	1.0	99	67	107			
Zinc		243	mg/kg	1.0	105	75.3	111.7			
Lab ID: H15120093-043APDS	10	Post Digestion/Distillation Spike				Run: ICP2-HE_151217A				12/17/15 15:43
Aluminum		28000	mg/kg-dry	7.7		75	125			A
Barium		877	mg/kg-dry	1.0	96	75	125			
Beryllium		264	mg/kg-dry	1.0	91	75	125			
Copper		1180	mg/kg-dry	2.6	95	75	125			
Iron		33200	mg/kg-dry	6.8		75	125			A
Lead		651	mg/kg-dry	7.4	80	75	125			
Manganese		6180	mg/kg-dry	1.0	86	75	125			
Nickel		523	mg/kg-dry	1.0	86	75	125			
Vanadium		585	mg/kg-dry	1.7	89	75	125			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the sp ke level. In accordance with the method % recovery is not calculated.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B										Batch: 31476
Lab ID: H15120093-043APDS	10	Post Digestion/Distillation Spike				Run: ICP2-HE_151217A			12/17/15 15:43	
Zinc		2180	mg/kg-dry	1.1	84	75	125			
Lab ID: H15120093-043AMS	10	Sample Matrix Sp ke				Run: ICP2-HE_151217A			12/17/15 15:47	
Aluminum		28400	mg/kg-dry	7.7		75	125			A
Barium		438	mg/kg-dry	1.0	102	75	125			
Beryllium		59.2	mg/kg-dry	1.0	101	75	125			
Copper		728	mg/kg-dry	2.5		75	125			A
Iron		31900	mg/kg-dry	6.8		75	125			A
Lead		273	mg/kg-dry	7.3	79	75	125			
Manganese		3970	mg/kg-dry	1.0		75	125			A
Nickel		131	mg/kg-dry	1.0	95	75	125			
Vanadium		186	mg/kg-dry	1.7	102	75	125			
Zinc		1650	mg/kg-dry	1.1		75	125			A
Lab ID: H15120093-043AMSD	10	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_151217A			12/17/15 15:51	
Aluminum		30600	mg/kg-dry	7.9		75	125	7.6	20	A
Barium		464	mg/kg-dry	1.0	121	75	125	5.8	20	
Beryllium		60.5	mg/kg-dry	1.0	99	75	125	2.2	20	
Copper		804	mg/kg-dry	2.6		75	125	9.8	20	A
Iron		32200	mg/kg-dry	7.0		75	125	0.9	20	A
Lead		279	mg/kg-dry	7.6	81	75	125	2.1	20	
Manganese		4560	mg/kg-dry	1.0		75	125	14	20	A
Nickel		136	mg/kg-dry	1.0	95	75	125	3.4	20	
Vanadium		190	mg/kg-dry	1.8	101	75	125	1.8	20	
Zinc		1830	mg/kg-dry	1.1		75	125	10	20	A
Method: SW6010B										Batch: 31477
Lab ID: MB-31477	7	Method Blank				Run: ICP2-HE_151217A			12/17/15 15:54	
Aluminum		1	mg/kg	0.3						
Beryllium		ND	mg/kg	0.009						
Copper		0.2	mg/kg	0.2						
Iron		2	mg/kg	0.6						
Manganese		0.04	mg/kg	0.02						
Nickel		ND	mg/kg	0.07						
Zinc		0.3	mg/kg	0.09						
Lab ID: LFB-31477	7	Laboratory Fortified Blank				Run: ICP2-HE_151217A			12/17/15 15:58	
Aluminum		272	mg/kg	5.0	105	80	120			
Beryllium		26.9	mg/kg	1.0	105	80	120			
Copper		53.7	mg/kg	1.0	104	80	120			
Iron		263	mg/kg	5.0	101	80	120			
Manganese		259	mg/kg	1.0	101	80	120			
Nickel		51.2	mg/kg	1.0	99	80	120			
Zinc		50.6	mg/kg	1.0	98	80	120			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the sp ke level. In accordance with the method % recovery is not calculated.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B										Batch: 31477
Lab ID: LCS-31477	7	Laboratory Control Sample				Run: ICP2-HE_151217A				12/17/15 16:02
Aluminum		9730	mg/kg	5.0	99	46.3	130.2			
Beryllium		81.7	mg/kg	1.0	98	76.2	108			
Copper		125	mg/kg	1.1	91	76.6	108.8			
Iron		15900	mg/kg	5.0	98	51.7	131.9			
Manganese		418	mg/kg	1.0	96	81.1	116.6			
Nickel		78.2	mg/kg	1.0	91	72.3	105			
Zinc		235	mg/kg	1.0	102	75.3	111.7			
Lab ID: H15120093-044APDS	7	Post Digestion/Distillation Spike				Run: ICP2-HE_151217A				12/17/15 17:47
Aluminum		7990	mg/kg-dry	5.0	104	75	125			
Beryllium		166	mg/kg-dry	1.0	96	75	125			
Copper		434	mg/kg-dry	1.5	95	75	125			
Iron		18600	mg/kg-dry	5.0		75	125			A
Manganese		2490	mg/kg-dry	1.0	95	75	125			
Nickel		338	mg/kg-dry	1.0	96	75	125			
Zinc		712	mg/kg-dry	1.0	99	75	125			
Lab ID: H15120093-044AMS	7	Sample Matrix Sp ke				Run: ICP2-HE_151217A				12/17/15 17:51
Aluminum		7780	mg/kg-dry	5.0		75	125			A
Beryllium		32.8	mg/kg-dry	1.0	105	75	125			
Copper		159	mg/kg-dry	1.4	87	75	125			
Iron		17100	mg/kg-dry	5.0		75	125			A
Manganese		1160	mg/kg-dry	1.0	98	75	125			
Nickel		69.4	mg/kg-dry	1.0	104	75	125			
Zinc		446	mg/kg-dry	1.0		75	125			A
Lab ID: H15120093-044AMSD	7	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_151217A				12/17/15 17:55
Aluminum		8430	mg/kg-dry	5.0		75	125	8.1	20	A
Beryllium		33.6	mg/kg-dry	1.0	109	75	125	2.4	20	
Copper		182	mg/kg-dry	1.3	126	75	125	14	20	S
Iron		19200	mg/kg-dry	5.0		75	125	12	20	A
Manganese		1260	mg/kg-dry	1.0	133	75	125	8.5	20	S
Nickel		72.5	mg/kg-dry	1.0	110	75	125	4.4	20	
Zinc		478	mg/kg-dry	1.0		75	125	7.0	20	A

- S= Spike recovery outside of QC advisory limits. The recovery in the Laboratory Control Sample was wi hin QC advisory limits. This suggests that the Matrix Spike recover is due to matrix interference.

Method: SW6010B										Batch: 31478
Lab ID: MB-31478	7	Method Blank				Run: ICP2-HE_151217A				12/17/15 17:58
Aluminum		ND	mg/kg	0.7						
Barium		0.3	mg/kg	0.02						
Beryllium		ND	mg/kg	0.009						
Copper		0.4	mg/kg	0.2						
Iron		2	mg/kg	0.6						
Manganese		0.06	mg/kg	0.02						
Nickel		ND	mg/kg	0.07						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the sp ke level. In accordance with the method % recovery is not calculated.

S - Sp ke recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**SW6010B**										Batch: 31478
Lab ID:	**MB-31478**	7	Method Blank				Run: ICP2-HE_151217A				12/17/15 17:58
Lab ID:	**LFB-31478**	7	Laboratory Fortified Blank				Run: ICP2-HE_151217A				12/17/15 18:02
Aluminum			263	mg/kg	5.0	107	80	120			
Barium			52.5	mg/kg	1.0	107	80	120			
Beryllium			26.3	mg/kg	1.0	107	80	120			
Copper			51.6	mg/kg	1.0	104	80	120			
Iron			256	mg/kg	5.0	104	80	120			
Manganese			256	mg/kg	1.0	104	80	120			
Nickel			51.2	mg/kg	1.0	104	80	120			
Lab ID:	**LCS-31478**	7	Laboratory Control Sample				Run: ICP2-HE_151217A				12/17/15 18:06
Aluminum			10100	mg/kg	5.0	103	46.3	130.2			
Barium			177	mg/kg	1.0	95	78.6	112.8			
Beryllium			84.6	mg/kg	1.0	101	76.2	108			
Copper			128	mg/kg	1.0	93	76.6	108.8			
Iron			16500	mg/kg	5.0	101	51.7	131.9			
Manganese			437	mg/kg	1.0	101	81.1	116.6			
Nickel			82.5	mg/kg	1.0	96	72.3	105			
Lab ID:	**H15120093-045APDS**	7	Post Digestion/Distillation Spike				Run: ICP2-HE_151217A				12/17/15 19:09
Aluminum			5420	mg/kg-dry	5.0	102	75	125			
Barium			340	mg/kg-dry	1.0	98	75	125			
Beryllium			141	mg/kg-dry	1.0	98	75	125			
Copper			407	mg/kg-dry	1.3	97	75	125			
Iron			10500	mg/kg-dry	5.0		75	125			A
Manganese			1890	mg/kg-dry	1.0	96	75	125			
Nickel			285	mg/kg-dry	1.0	98	75	125			
Lab ID:	**H15120093-045AMS**	7	Sample Matrix Sp ke				Run: ICP2-HE_151217A				12/17/15 19:13
Aluminum			5470	mg/kg-dry	5.0		75	125			A
Barium			142	mg/kg-dry	1.0	145	75	125			S
Beryllium			30.5	mg/kg-dry	1.0	107	75	125			
Copper			142	mg/kg-dry	1.2	23	75	125			S
Iron			11700	mg/kg-dry	5.0		75	125			A
Manganese			957	mg/kg-dry	1.0	159	75	125			S
Nickel			64.1	mg/kg-dry	1.0	107	75	125			

- S= Spike recovery outside of QC advisory limits. The recovery in the Laboratory Control Sample was wi hin QC advisory limits. This suggests that the Matrix Spike recover is due to matrix interference.

Lab ID:	**H15120093-045AMSD**	7	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_151217A				12/17/15 19:17
Aluminum			4370	mg/kg-dry	5.0		75	125	22	20	AR
Barium			123	mg/kg-dry	1.0	105	75	125	14	20	
Beryllium			33.2	mg/kg-dry	1.0	110	75	125	8.5	20	
Copper			120	mg/kg-dry	1.3	-16	75	125	17	20	S
Iron			8880	mg/kg-dry	5.0		75	125	27	20	AR
Manganese			811	mg/kg-dry	1.0	102	75	125	16	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

A - The analyte level was greater than four times the sp ke level. In accordance with the method % recovery is not calculated.

R - RPD exceeds advisory limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B										Batch: 31478
Lab ID: H15120093-045AMSD	7	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_151217A			12/17/15 19:17	
Nickel		65.8	mg/kg-dry	1.0	104	75	125	2.7	20	

- S= Spike recovery outside of QC advisory limits. The recovery in the Laboratory Control Sample was within QC advisory limits. This suggests that the Matrix Spike recover is due to matrix interference.

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6010B										Batch: 31478
Lab ID: H15120093-045AMS	7	Sample Matrix Sp ke				Run: ICP2-HE_151218D			12/18/15 17:56	
Aluminum		5410	mg/kg-dry	5.0		75	125			A
Barium		142	mg/kg-dry	1.0	148	75	125			S
Beryllium		29.8	mg/kg-dry	1.0	104	75	125			
Copper		141	mg/kg-dry	1.2	31	75	125			S
Iron		11500	mg/kg-dry	5.0		75	125			A
Manganese		934	mg/kg-dry	1.0	159	75	125			S
Nickel		59.7	mg/kg-dry	1.0	99	75	125			
Lab ID: H15120093-045AMSD	7	Sample Matrix Sp ke Duplicate				Run: ICP2-HE_151218D			12/18/15 17:59	
Aluminum		4240	mg/kg-dry	5.0		75	125	24	20	AR
Barium		120	mg/kg-dry	1.0	104	75	125	16	20	
Beryllium		31.2	mg/kg-dry	1.0	103	75	125	4.6	20	
Copper		116	mg/kg-dry	1.3	-12	75	125	20	20	S
Iron		8360	mg/kg-dry	5.0		75	125	32	20	AR
Manganese		754	mg/kg-dry	1.0	90	75	125	21	20	R
Nickel		63.2	mg/kg-dry	1.0	99	75	125	5.6	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

A - The analyte level was greater than four times the sp ke level. In accordance with the method % recovery is not calculated.

R - RPD exceeds advisory limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020								Analytical Run: ICPMS204-B_151217A		
Lab ID: ICV STD	14	Initial Calibration Verification Standard								12/17/15 17:34
Antimony		0.0598	mg/L	0.0010	100	90	110			
Arsenic		0.0603	mg/L	0.0010	100	90	110			
Barium		0.0598	mg/L	0.0010	100	90	110			
Boron		0.0618	mg/L	0.0010	103	90	110			
Cadmium		0.0312	mg/L	0.0010	104	90	110			
Chromium		0.0605	mg/L	0.0010	101	90	110			
Cobalt		0.0609	mg/L	0.0010	101	90	110			
Lead		0.0589	mg/L	0.0010	98	90	110			
Molybdenum		0.0584	mg/L	0.0010	97	90	110			
Selenium		0.0604	mg/L	0.0010	101	90	110			
Silver		0.0305	mg/L	0.0010	102	90	110			
Uranium		0.0602	mg/L	0.00030	100	90	110			
Vanadium		0.0593	mg/L	0.0010	99	90	110			
Zinc		0.0615	mg/L	0.0010	103	90	110			
Lab ID: ICV STD	14	Initial Calibration Verification Standard								12/17/15 23:03
Antimony		0.0596	mg/L	0.0010	99	90	110			
Arsenic		0.0611	mg/L	0.0010	102	90	110			
Barium		0.0591	mg/L	0.0010	99	90	110			
Boron		0.0627	mg/L	0.0010	104	90	110			
Cadmium		0.0309	mg/L	0.0010	103	90	110			
Chromium		0.0607	mg/L	0.0010	101	90	110			
Cobalt		0.0617	mg/L	0.0010	103	90	110			
Lead		0.0595	mg/L	0.0010	99	90	110			
Molybdenum		0.0583	mg/L	0.0010	97	90	110			
Selenium		0.0620	mg/L	0.0010	103	90	110			
Silver		0.0308	mg/L	0.0010	103	90	110			
Uranium		0.0593	mg/L	0.00030	99	90	110			
Vanadium		0.0595	mg/L	0.0010	99	90	110			
Zinc		0.0611	mg/L	0.0010	102	90	110			
Method: SW6020										Batch: 31476
Lab ID: MB-31476	11	Method Blank				Run: ICPMS204-B_151217A				12/17/15 18:37
Antimony		ND	mg/kg	0.08						
Arsenic		0.07	mg/kg	0.05						
Boron		ND	mg/kg	2						
Cadmium		ND	mg/kg	0.2						
Chromium		0.1	mg/kg	0.04						
Cobalt		ND	mg/kg	0.04						
Lead		ND	mg/kg	0.1						
Molybdenum		ND	mg/kg	0.1						
Selenium		ND	mg/kg	0.2						
Silver		ND	mg/kg	0.06						
Uranium		ND	mg/kg	0.06						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020										Batch: 31476
Lab ID: LCS-31476	11	Laboratory Control Sample				Run: ICPMS204-B_151217A				12/17/15 18:41
Antimony		64.8	mg/kg	1.0	27	0	92.9			
Arsenic		173	mg/kg	1.0	88	71.4	105.1			
Boron		113	mg/kg	2.3	88	59.5	106.2			
Cadmium		98.6	mg/kg	1.0	100	73.9	106.1			
Chromium		113	mg/kg	1.0	97	73.5	108.5			
Cobalt		111	mg/kg	1.0	103	74.2	105.6			
Lead		105	mg/kg	1.0	100	74.4	108.6			
Molybdenum		117	mg/kg	1.0	92	66.5	103.1			
Selenium		197	mg/kg	1.0	96	71.2	110.2			
Silver		42.7	mg/kg	1.0	101	70.8	111.9			
Uranium		100	mg/kg	1.0	100	80.1	120.1			
Lab ID: LFB-31476	11	Laboratory Fortified Blank				Run: ICPMS204-B_151217A				12/17/15 18:44
Antimony		51.9	mg/kg	1.0	105	80	120			
Arsenic		49.5	mg/kg	1.0	100	80	120			
Boron		49.8	mg/kg	2.1	101	80	120			
Cadmium		25.4	mg/kg	1.0	102	80	120			
Chromium		49.2	mg/kg	1.0	99	80	120			
Cobalt		50.0	mg/kg	1.0	101	80	120			
Lead		51.0	mg/kg	1.0	103	80	120			
Molybdenum		49.1	mg/kg	1.0	99	80	120			
Selenium		48.6	mg/kg	1.0	98	80	120			
Silver		25.5	mg/kg	1.0	103	80	120			
Uranium		51.3	mg/kg	1.0	104	80	120			
Lab ID: H15120093-043APDS	11	Post Digestion/Distillation Spike				Run: ICPMS204-B_151217A				12/17/15 19:40
Antimony		1150	mg/kg-dry	1.0	101	75	125			
Arsenic		1090	mg/kg-dry	1.0	93	75	125			
Boron		1000	mg/kg-dry	4.9	88	75	125			
Cadmium		552	mg/kg-dry	1.0	95	75	125			
Chromium		1080	mg/kg-dry	1.0	93	75	125			
Cobalt		1050	mg/kg-dry	1.0	92	75	125			
Lead		1210	mg/kg-dry	1.0	91	75	125			
Molybdenum		1070	mg/kg-dry	1.0	94	75	125			
Selenium		1000	mg/kg-dry	1.0	89	75	125			
Silver		531	mg/kg-dry	1.0	94	75	125			
Uranium		1100	mg/kg-dry	1.0	96	75	125			
Lab ID: H15120093-043AMS	11	Sample Matrix Sp ke				Run: ICPMS204-B_151217A				12/17/15 19:42
Antimony		48.5	mg/kg-dry	1.0	42	75	125			S
Arsenic		157	mg/kg-dry	1.0	98	75	125			
Boron		123	mg/kg-dry	5.0	100	75	125			
Cadmium		72.1	mg/kg-dry	1.0	101	75	125			
Chromium		153	mg/kg-dry	1.0	99	75	125			
Cobalt		127	mg/kg-dry	1.0	100	75	125			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020									Batch: 31476	
Lab ID: H15120093-043AMS	11	Sample Matrix Sp ke				Run: ICPMS204-B_151217A			12/17/15 19:42	
Lead		289	mg/kg-dry	1.0	100	75	125			
Molybdenum		116	mg/kg-dry	1.0	98	75	125			
Selenium		113	mg/kg-dry	1.0	97	75	125			
Silver		61.7	mg/kg-dry	1.0	103	75	125			
Uranium		125	mg/kg-dry	1.0	102	75	125			
Lab ID: H15120093-043AMSD	11	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_151217A			12/17/15 19:46	
Antimony		43.1	mg/kg-dry	1.0	36	75	125	12	20	S
Arsenic		166	mg/kg-dry	1.0	103	75	125	5.9	20	
Boron		119	mg/kg-dry	5.2	92	75	125	3.9	20	
Cadmium		76.1	mg/kg-dry	1.0	104	75	125	5.5	20	
Chromium		160	mg/kg-dry	1.0	101	75	125	4.5	20	
Cobalt		132	mg/kg-dry	1.0	100	75	125	4.0	20	
Lead		305	mg/kg-dry	1.0	109	75	125	5.4	20	
Molybdenum		117	mg/kg-dry	1.0	96	75	125	1.5	20	
Selenium		117	mg/kg-dry	1.0	97	75	125	2.9	20	
Silver		64.2	mg/kg-dry	1.0	103	75	125	4.0	20	
Uranium		128	mg/kg-dry	1.0	100	75	125	2.1	20	
Method: SW6020									Batch: 31477	
Lab ID: MB-31477	13	Method Blank				Run: ICPMS204-B_151217A			12/17/15 19:58	
Antimony		ND	mg/kg	0.08						
Arsenic		0.1	mg/kg	0.05						
Barium		ND	mg/kg	0.4						
Boron		ND	mg/kg	2						
Cadmium		ND	mg/kg	0.2						
Chromium		0.2	mg/kg	0.04						
Cobalt		0.05	mg/kg	0.04						
Lead		0.1	mg/kg	0.10						
Molybdenum		ND	mg/kg	0.09						
Selenium		ND	mg/kg	0.2						
Silver		ND	mg/kg	0.05						
Uranium		0.06	mg/kg	0.06						
Vanadium		ND	mg/kg	0.4						
Lab ID: LCS-31477	13	Laboratory Control Sample				Run: ICPMS204-B_151217A			12/17/15 20:01	
Antimony		68.3	mg/kg	1.0	28	0	92.9			
Arsenic		170	mg/kg	1.0	87	71.4	105.1			
Barium		189	mg/kg	1.0	101	78.6	112.8			
Boron		107	mg/kg	2.2	83	59.5	106.2			
Cadmium		97.7	mg/kg	1.0	99	73.9	106.1			
Chromium		109	mg/kg	1.0	93	73.5	108.5			
Cobalt		108	mg/kg	1.0	100	74.2	105.6			
Lead		101	mg/kg	1.0	97	74.4	108.6			
Molybdenum		116	mg/kg	1.0	91	66.5	103.1			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020										Batch: 31477
Lab ID: LCS-31477	13	Laboratory Control Sample				Run: ICPMS204-B_151217A				12/17/15 20:01
Selenium		191	mg/kg	1.0	93	71.2	110.2			
Silver		42.4	mg/kg	1.0	101	70.8	111.9			
Uranium		97.9	mg/kg	1.0	98	80.1	120.1			
Vanadium		107	mg/kg	1.0	94	67	107			
Lab ID: LFB-31477	13	Laboratory Fortified Blank				Run: ICPMS204-B_151217A				12/17/15 20:05
Antimony		54.5	mg/kg	1.0	106	80	120			
Arsenic		51.8	mg/kg	1.0	100	80	120			
Barium		55.7	mg/kg	1.0	108	80	120			
Boron		51.5	mg/kg	2.2	100	80	120			
Cadmium		26.6	mg/kg	1.0	103	80	120			
Chromium		50.8	mg/kg	1.0	98	80	120			
Cobalt		51.8	mg/kg	1.0	100	80	120			
Lead		52.8	mg/kg	1.0	102	80	120			
Molybdenum		50.9	mg/kg	1.0	99	80	120			
Selenium		51.2	mg/kg	1.0	99	80	120			
Silver		26.9	mg/kg	1.0	105	80	120			
Uranium		53.0	mg/kg	1.0	103	80	120			
Vanadium		50.1	mg/kg	1.0	97	80	120			
Lab ID: H15120093-044APDS	13	Post Digestion/Distillation Spike				Run: ICPMS204-B_151217A				12/17/15 20:59
Antimony		681	mg/kg-dry	1.0	101	75	125			
Arsenic		647	mg/kg-dry	1.0	93	75	125			
Barium		829	mg/kg-dry	1.0	104	75	125			
Boron		598	mg/kg-dry	2.9	89	75	125			
Cadmium		324	mg/kg-dry	1.0	96	75	125			
Chromium		643	mg/kg-dry	1.0	94	75	125			
Cobalt		628	mg/kg-dry	1.0	93	75	125			
Lead		664	mg/kg-dry	1.0	92	75	125			
Molybdenum		633	mg/kg-dry	1.0	94	75	125			
Selenium		604	mg/kg-dry	1.0	90	75	125			
Silver		313	mg/kg-dry	1.0	93	75	125			
Uranium		655	mg/kg-dry	1.0	97	75	125			
Vanadium		675	mg/kg-dry	1.0	94	75	125			
Lab ID: H15120093-044AMS	13	Sample Matrix Sp ke				Run: ICPMS204-B_151217A				12/17/15 21:02
Antimony		43.8	mg/kg-dry	1.0	70	75	125			S
Arsenic		79.7	mg/kg-dry	1.0	99	75	125			
Barium		210	mg/kg-dry	1.0	133	75	125			S
Boron		64.8	mg/kg-dry	2.7	105	75	125			
Cadmium		32.9	mg/kg-dry	1.0	103	75	125			
Chromium		74.5	mg/kg-dry	1.0	100	75	125			
Cobalt		65.6	mg/kg-dry	1.0	99	75	125			
Lead		107	mg/kg-dry	1.0	106	75	125			
Molybdenum		61.7	mg/kg-dry	1.0	99	75	125			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020									Batch: 31477	
Lab ID: H15120093-044AMS	13	Sample Matrix Sp ke				Run: ICPMS204-B_151217A			12/17/15 21:02	
Selenium		60.7	mg/kg-dry	1.0	98	75	125			
Silver		33.5	mg/kg-dry	1.0	107	75	125			
Uranium		68.4	mg/kg-dry	1.0	108	75	125			
Vanadium		104	mg/kg-dry	1.0	99	75	125			
Lab ID: H15120093-044AMSD	13	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_151217A			12/17/15 21:05	
Antimony		41.7	mg/kg-dry	1.0	68	75	125	4.9	20	S
Arsenic		81.9	mg/kg-dry	1.0	103	75	125	2.6	20	
Barium		218	mg/kg-dry	1.0	147	75	125	3.7	20	S
Boron		59.7	mg/kg-dry	2.6	98	75	125	8.2	20	
Cadmium		33.1	mg/kg-dry	1.0	104	75	125	0.3	20	
Chromium		75.0	mg/kg-dry	1.0	102	75	125	0.6	20	
Cobalt		66.4	mg/kg-dry	1.0	101	75	125	1.2	20	
Lead		111	mg/kg-dry	1.0	114	75	125	3.7	20	
Molybdenum		60.8	mg/kg-dry	1.0	98	75	125	1.3	20	
Selenium		62.0	mg/kg-dry	1.0	101	75	125	2.1	20	
Silver		32.6	mg/kg-dry	1.0	105	75	125	2.7	20	
Uranium		65.6	mg/kg-dry	1.0	104	75	125	4.2	20	
Vanadium		106	mg/kg-dry	1.0	104	75	125	2.4	20	
Method: SW6020									Batch: 31478	
Lab ID: MB-31478	13	Method Blank				Run: ICPMS204-B_151217A			12/17/15 21:18	
Antimony		0.08	mg/kg	0.08						
Arsenic		0.1	mg/kg	0.05						
Boron		ND	mg/kg	2						
Cadmium		ND	mg/kg	0.2						
Chromium		0.2	mg/kg	0.04						
Cobalt		0.10	mg/kg	0.04						
Lead		0.2	mg/kg	0.1						
Molybdenum		ND	mg/kg	0.10						
Selenium		ND	mg/kg	0.2						
Silver		ND	mg/kg	0.06						
Uranium		0.10	mg/kg	0.06						
Vanadium		ND	mg/kg	0.4						
Zinc		ND	mg/kg	10						
Lab ID: LCS-31478	13	Laboratory Control Sample				Run: ICPMS204-B_151217A			12/17/15 21:21	
Antimony		61.8	mg/kg	1.0	26	0	92.9			
Arsenic		173	mg/kg	1.0	88	71.4	105.1			
Boron		107	mg/kg	2.0	83	59.5	106.2			
Cadmium		98.3	mg/kg	1.0	99	73.9	106.1			
Chromium		110	mg/kg	1.0	94	73.5	108.5			
Cobalt		108	mg/kg	1.0	100	74.2	105.6			
Lead		102	mg/kg	1.0	97	74.4	108.6			
Molybdenum		115	mg/kg	1.0	90	66.5	103.1			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW6020										Batch: 31478
Lab ID: LCS-31478	13	Laboratory Control Sample				Run: ICPMS204-B_151217A				12/17/15 21:21
Selenium		199	mg/kg	1.0	97	71.2	110.2			
Silver		42.6	mg/kg	1.0	101	70.8	111.9			
Uranium		96.4	mg/kg	1.0	96	80.1	120.1			
Vanadium		108	mg/kg	1.0	95	67	107			
Zinc		247	mg/kg	11	107	75.3	111.7			
Lab ID: LFB-31478	13	Laboratory Fortified Blank				Run: ICPMS204-B_151217A				12/17/15 21:24
Antimony		51.2	mg/kg	1.0	104	80	120			
Arsenic		50.4	mg/kg	1.0	103	80	120			
Boron		47.9	mg/kg	2.1	98	80	120			
Cadmium		25.6	mg/kg	1.0	104	80	120			
Chromium		48.3	mg/kg	1.0	98	80	120			
Cobalt		49.3	mg/kg	1.0	100	80	120			
Lead		49.6	mg/kg	1.0	101	80	120			
Molybdenum		48.4	mg/kg	1.0	99	80	120			
Selenium		50.0	mg/kg	1.0	102	80	120			
Silver		25.1	mg/kg	1.0	102	80	120			
Uranium		49.6	mg/kg	1.0	101	80	120			
Vanadium		47.5	mg/kg	1.0	97	80	120			
Zinc		49.9	mg/kg	11	102	80	120			
Lab ID: H15120093-045APDS	13	Post Digestion/Distillation Spike				Run: ICPMS204-B_151217A				12/17/15 22:18
Antimony		562	mg/kg-dry	1.0	101	75	125			
Arsenic		557	mg/kg-dry	1.0	94	75	125			
Boron		495	mg/kg-dry	2.4	89	75	125			
Cadmium		270	mg/kg-dry	1.0	97	75	125			
Chromium		526	mg/kg-dry	1.0	93	75	125			
Cobalt		522	mg/kg-dry	1.0	93	75	125			
Lead		557	mg/kg-dry	1.0	93	75	125			
Molybdenum		534	mg/kg-dry	1.0	96	75	125			
Selenium		513	mg/kg-dry	1.0	92	75	125			
Silver		200	mg/kg-dry	1.0	72	75	125			S
Uranium		541	mg/kg-dry	1.0	97	75	125			
Vanadium		539	mg/kg-dry	1.0	94	75	125			
Zinc		657	mg/kg-dry	13	86	75	125			
Lab ID: H15120093-045AMS	13	Sample Matrix Sp ke				Run: ICPMS204-B_151217A				12/17/15 22:21
Antimony		47.5	mg/kg-dry	1.0	83	75	125			
Arsenic		79.4	mg/kg-dry	1.0	78	75	125			
Boron		58.7	mg/kg-dry	2.4	103	75	125			
Cadmium		30.3	mg/kg-dry	1.0	105	75	125			
Chromium		63.8	mg/kg-dry	1.0	103	75	125			
Cobalt		60.3	mg/kg-dry	1.0	102	75	125			
Lead		82.3	mg/kg-dry	1.0	78	75	125			
Molybdenum		57.3	mg/kg-dry	1.0	100	75	125			

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **SW6020**										Batch: 31478
Lab ID: **H15120093-045AMS**	13	Sample Matrix Sp ke				Run: ICPMS204-B_151217A			12/17/15 22:21	
Selenium		58.4	mg/kg-dry	1.0	103	75	125			
Silver		29.8	mg/kg-dry	1.0	104	75	125			
Uranium		60.6	mg/kg-dry	1.0	104	75	125			
Vanadium		75.2	mg/kg-dry	1.0	104	75	125			
Zinc		374	mg/kg-dry	13	348	75	125			S
Lab ID: **H15120093-045AMSD**	13	Sample Matrix Sp ke Duplicate				Run: ICPMS204-B_151217A			12/17/15 22:24	
Antimony		52.9	mg/kg-dry	1.0	87	75	125	11	20	
Arsenic		73.7	mg/kg-dry	1.0	64	75	125	7.5	20	S
Boron		60.6	mg/kg-dry	2.6	101	75	125	3.2	20	
Cadmium		32.7	mg/kg-dry	1.0	107	75	125	7.5	20	
Chromium		65.4	mg/kg-dry	1.0	99	75	125	2.4	20	
Cobalt		62.7	mg/kg-dry	1.0	100	75	125	3.9	20	
Lead		79.3	mg/kg-dry	1.0	69	75	125	3.7	20	S
Molybdenum		60.9	mg/kg-dry	1.0	100	75	125	6.1	20	
Selenium		60.9	mg/kg-dry	1.0	101	75	125	4.3	20	
Silver		31.6	mg/kg-dry	1.0	104	75	125	6.1	20	
Uranium		64.0	mg/kg-dry	1.0	104	75	125	5.6	20	
Vanadium		76.6	mg/kg-dry	1.0	100	75	125	1.7	20	
Zinc		215	mg/kg-dry	14	63	75	125	54	20	SR

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

R - RPD exceeds advisory limit.

S - Sp ke recovery outside of advisory limits.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte		Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	**SW6020**								Analytical Run: ICPMS204-B_151218A		
Lab ID:	**ICV STD**		Initial Calibration Verification Standard							12/18/15 14:31	
Boron			0.0609	mg/L	0.0010	102	90	110			
Lab ID:	**ICV STD**		Initial Calibration Verification Standard							12/18/15 17:03	
Boron			0.0639	mg/L	0.0010	107	90	110			
Lab ID:	**ICV STD**		Initial Calibration Verification Standard							12/19/15 00:41	
Boron			0.0620	mg/L	0.0010	103	90	110			
Method:	**SW6020**										Batch: 31478
Lab ID:	**MB-31478**	13	Method Blank				Run: ICPMS204-B_151218A			12/18/15 15:07	
Antimony			ND	mg/kg	0.08						
Arsenic			0.07	mg/kg	0.05						
Boron			ND	mg/kg	2						
Cadmium			ND	mg/kg	0.2						
Chromium			0.1	mg/kg	0.04						
Cobalt			ND	mg/kg	0.04						
Lead			ND	mg/kg	0.1						
Molybdenum			ND	mg/kg	0.10						
Selenium			ND	mg/kg	0.2						
Silver			ND	mg/kg	0.06						
Uranium			ND	mg/kg	0.06						
Vanadium			ND	mg/kg	0.4						
Zinc			ND	mg/kg	10						

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

QA/QC Summary Report

Prepared by Helena, MT Branch

Client: Natural Resource Damage Program **Report Date:** 12/23/15

Project: Silver Bow Creek Monitoring **Work Order:** H15120092

Analyte	Count	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: **SW7471B**								Analytical Run: HGCV201-H_151211A		
Lab ID: **ICV**		Initial Calibration Verification Standard							12/11/15 14:15	
Mercury		0.00099	mg/kg	0.50	99	90	110			
Lab ID: **CCV**		Continuing Calibration Verification Standard							12/11/15 14:17	
Mercury		0.0024	mg/kg	0.50	95	90	110			
Method: **SW7471B**									Batch: 31449	
Lab ID: **MB-31449**		Method Blank				Run: HGCV201-H_151211A			12/11/15 14:37	
Mercury		ND	mg/kg	0.010						
Lab ID: **LCS-31449**		Laboratory Control Sample				Run: HGCV201-H_151211A			12/11/15 14:39	
Mercury		5.6	mg/kg	0.50	111	71	126.4			
Lab ID: **LFB-31449**		Laboratory Fortified Blank				Run: HGCV201-H_151211A			12/11/15 14:41	
Mercury		1.0	mg/kg	0.50	105	80	120			
Lab ID: **H15120092-004AMS**		Sample Matrix Sp ke				Run: HGCV201-H_151211A			12/11/15 14:47	
Mercury		2.3	mg/kg-dry	0.50	99	80	120			
Lab ID: **H15120092-004AMSD**		Sample Matrix Sp ke Duplicate				Run: HGCV201-H_151211A			12/11/15 14:49	
Mercury		2.4	mg/kg-dry	0.50	103	80	120	3.9	20	
Lab ID: **H15120093-020AMS**		Sample Matrix Sp ke				Run: HGCV201-H_151211A			12/11/15 15:11	
Mercury		1.4	mg/kg-dry	0.50	109	80	120			
Lab ID: **H15120093-020AMSD**		Sample Matrix Sp ke Duplicate				Run: HGCV201-H_151211A			12/11/15 15:13	
Mercury		1.4	mg/kg-dry	0.50	106	80	120	1.6	20	

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

Work Order Receipt Checklist

Natural Resource Damage Program H15120092

Login completed by: Tracy L. Lorash
Date Received: 12/7/2015
Reviewed by: BL2000\rwilliams
Received by: TLL
Reviewed Date: 12/9/2015
Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	°C See comments		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	Not Applicable ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

Collection time on COC for SS-05A is 1600 - time on bottles is 1630. Per Gary, time on bottles is correct.
Cooler1 containing sediment jars was received at 19.3°C, Cooler 2 at 5.2°C, Cooler 3 at 8.5°C, Cooler 4 at 1.6°C, Cooler 5 at 2.6°C, Cooler 6 containing sediment jars at 18.5°C. Samples in Cooler 1 and 6 were not received on ice and temperatures were taken from a client sample, samples in Cooler 2, 4 & 5 were received on ice and temperatures were taken from a temperature blank, samples in Cooler 3 was received on melted ice and temperature was taken from a temperature blank. tl 12/8/15

ANALYTICAL SUMMARY REPORT

December 29, 2015

MT DEQ-Federal Superfund
PO Box 200901
Helena, MT 59620-0901

Work Order: H15120093 Quote ID: H1088 - Silver Bow Monitoring

Project Name: Silver Bow Creek Monitoring

Energy Laboratories Inc Helena MT received the following 45 samples for MT DEQ-Federal Superfund on 12/7/2015 for analysis.

Lab ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
H15120093-001	SS-06G	12/04/15 15:30	12/07/15	Aqueous	Metals by ICP/ICPMS, Dissolved Metals by ICP/ICPMS, Tot. Rec. Alkalinity Carbon, Dissolved Organic Conductivity Mercury, Dissolved Mercury, Total Recoverable Hardness as CaCO3 Anions by Ion Chromatography Nitrogen, Ammonia Nitrogen, Nitrate + Nitrite Nitrogen, Total Persulfate Metals Digestion by EPA 200.2 Digestion, Mercury by CVAA Digestion, Total P Water Nitrogen, Total Persulfate Phosphorus, Total Solids, Total Suspended Solids, Suspended Volatile
H15120093-002	Field Blank #2 (SS-06G)	12/04/15 15:00	12/07/15	Aqueous	Same As Above
H15120093-003	SS-07	12/04/15 14:30	12/07/15	Aqueous	Same As Above
H15120093-004	SS-08	12/04/15 13:30	12/07/15	Aqueous	Same As Above
H15120093-005	SS-10A	12/04/15 12:00	12/07/15	Aqueous	Same As Above
H15120093-006	Field Duplicate #2 (SS-10A	12/04/15 12:00	12/07/15	Aqueous	Same As Above
H15120093-007	SS-10B	12/04/15 11:00	12/07/15	Aqueous	Same As Above
H15120093-008	SS-11C	12/04/15 9:45	12/07/15	Aqueous	Same As Above
H15120093-009	SS-11D	12/04/15 9:15	12/07/15	Aqueous	Same As Above
H15120093-010	SS-13	12/03/15 16:00	12/07/15	Aqueous	Same As Above
H15120093-011	SS-14	12/03/15 15:00	12/07/15	Aqueous	Same As Above
H15120093-012	Field Duplicate #1 (SS-14	12/03/15 15:00	12/07/15	Aqueous	Same As Above
H15120093-013	SS-15A	12/03/15 13:45	12/07/15	Aqueous	Same As Above
H15120093-014	SS-15B	12/03/15 12:45	12/07/15	Aqueous	Same As Above
H15120093-015	SS-16B	12/03/15 11:30	12/07/15	Aqueous	Same As Above
H15120093-016	SS-17D	12/03/15 10:30	12/07/15	Aqueous	Same As Above

ANALYTICAL SUMMARY REPORT

H15120093-017	SS-19	12/03/15 10:00	12/07/15	Aqueous	Same As Above
H15120093-018	Field Blank #1 (SS-19)	12/03/15 9:30	12/07/15	Aqueous	Same As Above
H15120093-019	SS-06G Sediment Sieve <0.065mm	12/04/15 15:30	12/07/15	Sediment	Metals by ICP/ICPMS, Total Mercury in Solid By CVAA Percent Moisture Digestion, Total Metals Digestion, Mercury by CVAA Sieves Soil Preparation
H15120093-020	SS-06G Sediment Sieve 0.065-1mm	12/04/15 15:30	12/07/15	Sediment	Metals by ICP/ICPMS, Total Mercury in Solid By CVAA Percent Moisture Digestion, Total Metals Digestion, Mercury by CVAA Sieves
H15120093-021	SS-06G Sediment Sieve 1-2mm	12/04/15 15:30	12/07/15	Sediment	Same As Above
H15120093-022	SS-07 Sediment Sieve <0.065mm	12/04/15 14:15	12/07/15	Sediment	Same As Above
H15120093-023	SS-07 Sediment Sieve 0.065-1mm	12/04/15 14:15	12/07/15	Sediment	Same As Above
H15120093-024	SS-07 Sediment Sieve 1-2mm	12/04/15 14:15	12/07/15	Sediment	Same As Above
H15120093-025	SS-08 Sediment Sieve <0.065mm	12/04/15 13:30	12/07/15	Sediment	Same As Above
H15120093-026	SS-08 Sediment Sieve 0.065-1mm	12/04/15 13:30	12/07/15	Sediment	Same As Above
H15120093-027	SS-08 Sediment Sieve 1-2mm	12/04/15 13:30	12/07/15	Sediment	Same As Above
H15120093-028	SS-10A Sediment Sieve <0.065mm	12/04/15 12:00	12/07/15	Sediment	Same As Above
H15120093-029	SS-10A Sediment Sieve 0.065-1mm	12/04/15 12:00	12/07/15	Sediment	Same As Above
H15120093-030	SS-10A Sediment Sieve 1-2mm	12/04/15 12:00	12/07/15	Sediment	Same As Above
H15120093-031	SS-10B Sediment Sieve <0.065mm	12/04/15 11:15	12/07/15	Sediment	Same As Above
H15120093-032	SS-10B Sediment Sieve 0.065-1mm	12/04/15 11:15	12/07/15	Sediment	Same As Above
H15120093-033	SS-10B Sediment Sieve 1-2mm	12/04/15 11:15	12/07/15	Sediment	Same As Above
H15120093-034	Sediment Duplicate #2 (SS-10B) Sediment Sieve <0.065mm	12/04/15 11:00	12/07/15	Sediment	Same As Above
H15120093-035	Sediment Duplicate #2 (SS-10B) Sediment Sieve 0.065-1mm	12/04/15 11:00	12/07/15	Sediment	Same As Above
H15120093-036	Sediment Duplicate #2 (SS-10B) Sediment Sieve 1-2mm	12/04/15 11:00	12/07/15	Sediment	Same As Above
H15120093-037	SS-11C Sediment Sieve <0.065mm	12/04/15 10:15	12/07/15	Sediment	Same As Above

ANALYTICAL SUMMARY REPORT

H15120093-038	SS-11C Sediment Sieve 0.065-1mm	12/04/15 10:15	12/07/15	Sediment	Same As Above
H15120093-039	SS-11C Sediment Sieve 1-2mm	12/04/15 10:15	12/07/15	Sediment	Same As Above
H15120093-040	SS-11D Sediment Sieve <0.065mm	12/04/15 9:15	12/07/15	Sediment	Same As Above
H15120093-041	SS-11D Sediment Sieve 0.065-1mm	12/04/15 9:15	12/07/15	Sediment	Same As Above
H15120093-042	SS-11D Sediment Sieve 1-2mm	12/04/15 9:15	12/07/15	Sediment	Same As Above
H15120093-043	SS-17D Sediment Sieve <0.065mm	12/03/15 10:30	12/07/15	Sediment	Same As Above
H15120093-044	SS-17D Sediment Sieve 0.065-1mm	12/03/15 10:30	12/07/15	Sediment	Same As Above
H15120093-045	SS-17D Sediment Sieve 1-2mm	12/03/15 10:30	12/07/15	Sediment	Same As Above

The analyses presented in this report were performed by Energy Laboratories, Inc., 3161 E. Lyndale Ave., Helena, MT 59604, unless otherwise noted. Any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

The results as reported relate only to the item(s) submitted for testing.

If you have any questions regarding these test results, please call.

Report Approved By:

CLIENT: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Work Order: H15120093

Report Date: 12/29/15

CASE NARRATIVE

Tests associated with analyst identified as ELI-B were subcontracted to Energy Laboratories, 1120 S. 27th St., Billings, MT, EPA Number MT00005.

Tests associated with analyst identified as ELI-CA were subcontracted to Energy Laboratories, 2393 Salt Creek Hwy., Casper, WY, EPA Number WY00002 and WY00937.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G
Lab ID: H15120093-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 15:30 **DateReceived:** 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	25	mg/L		1		A2540 D	12/07/15 13:31 / SR		-124 (14410200)_151207A	7	TSS151207A
Solids, Volatile Suspended	6	mg/L		1		A2540 E	12/08/15 09:27 / SR		MISC WC_151208A	6	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	100	mg/L		4		A2320 B	12/08/15 09:41 / SR		PHSC_101-H_151208A	15	R111512
Bicarbonate as HCO3	130	mg/L		4		A2320 B	12/08/15 09:41 / SR		PHSC_101-H_151208A	15	R111512
Chloride	82	mg/L		1		E300.0	12/08/15 17:29 / SR		IC102-H_151208A	21	R111543
Sulfate	91	mg/L		1		E300.0	12/08/15 17:29 / SR		IC102-H_151208A	21	R111543
Hardness as CaCO3	243	mg/L		1		A2340 B	12/08/15 13:54 / abc		CALC_151209A	212	R111554
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	2.4	mg/L		0.5		A5310 C	12/11/15 21:55 / eli-c	12/11/15 11:39	SUB-C207393	9	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	12/09/15 14:07 / SR		FIA203-HE_151209B	15	R111563
Nitrogen, Nitrate+Nitrite as N	1.59	mg/L		0.02		E353.2	12/08/15 09:14 / cm		FIA203-HE_151208B	18	R111531
Nitrogen, Total	1.73	mg/L		0.05		A4500 N-C	12/09/15 10:50 / cm	12/08/15 10:36	FIA203-HE_151209A	16	31424
Phosphorus, Total as P	0.086	mg/L		0.003		E365.1	12/08/15 12:24 / cm	12/08/15 10:34	FIA202-HE_151208B	20	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/15/15 04:02 / dck		ICPMS204-B_151214B	33	R111723
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 17:50 / dck		ICPMS204-B_151210A	79	R111621
Arsenic	0.003	mg/L		0.001		E200.8	12/10/15 17:50 / dck		ICPMS204-B_151210A	79	R111621
Barium	0.053	mg/L		0.003		E200.8	12/10/15 17:50 / dck		ICPMS204-B_151210A	79	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 17:50 / dck		ICPMS204-B_151210A	79	R111621
Boron	0.1	mg/L		0.1		E200.7	12/08/15 13:54 / sld		ICP2-HE_151208A	44	R111524
Cadmium	ND	mg/L		0.00003		E200.8	12/15/15 04:02 / dck		ICPMS204-B_151214B	33	R111723
Calcium	55	mg/L		1		E200.7	12/08/15 13:54 / sld		ICP2-HE_151208A	44	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 17:50 / dck		ICPMS204-B_151210A	79	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 17:50 / dck		ICPMS204-B_151210A	79	R111621
Copper	0.002	mg/L		0.001		E200.8	12/10/15 17:50 / dck		ICPMS204-B_151210A	79	R111621
Iron	0.03	mg/L		0.02		E200.8	12/16/15 19:44 / dck		ICPMS204-B_151216A	40	R111742

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G
Lab ID: H15120093-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 15:30 **DateReceived:** 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 17:50 / dck		ICPMS204-B_151210A	79	R111621
Magnesium	26	mg/L		1		E200.7	12/08/15 13:54 / sld		ICP2-HE_151208A	44	R111524
Manganese	0.207	mg/L		0.001		E200.8	12/10/15 17:50 / dck		ICPMS204-B_151210A	79	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 14:29 / eli-b	12/10/15 09:31	SUB-B253692	16	B_95480
Molybdenum	0.006	mg/L		0.005		E200.8	12/10/15 17:50 / dck		ICPMS204-B_151210A	79	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 17:50 / dck		ICPMS204-B_151210A	79	R111621
Potassium	4	mg/L		1		E200.7	12/08/15 13:54 / sld		ICP2-HE_151208A	44	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 17:50 / dck		ICPMS204-B_151210A	79	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 17:50 / dck		ICPMS204-B_151210A	79	R111621
Sodium	30	mg/L		1		E200.7	12/08/15 13:54 / sld		ICP2-HE_151208A	44	R111524
Uranium	0.0054	mg/L		0.0002		E200.8	12/10/15 17:50 / dck		ICPMS204-B_151210A	79	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 17:50 / dck		ICPMS204-B_151210A	79	R111621
Zinc	0.019	mg/L		0.008		E200.8	12/10/15 17:50 / dck		ICPMS204-B_151210A	79	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.586	mg/L		0.009		E200.8	12/15/15 04:06 / dck	12/08/15 13:55	ICPMS204-B_151214B	34	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 17:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	80	31414
Arsenic	0.005	mg/L		0.001		E200.8	12/10/15 17:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	80	31414
Barium	0.063	mg/L		0.003		E200.8	12/10/15 17:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	80	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 17:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	80	31414
Boron	0.1	mg/L		0.1		E200.7	12/10/15 15:20 / sld	12/08/15 13:55	ICP2-HE_151210A	53	31414
Cadmium	0.00019	mg/L		0.00003		E200.8	12/15/15 04:06 / dck	12/08/15 13:55	ICPMS204-B_151214B	34	31414
Calcium	55	mg/L		1		E200.7	12/10/15 15:20 / sld	12/08/15 13:55	ICP2-HE_151210A	53	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 17:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	80	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 17:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	80	31414
Copper	0.019	mg/L		0.001		E200.8	12/10/15 17:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	80	31414
Iron	1.07	mg/L		0.02		E200.7	12/10/15 15:20 / sld	12/08/15 13:55	ICP2-HE_151210A	53	31414
Lead	0.0061	mg/L		0.0003		E200.8	12/10/15 17:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	80	31414
Magnesium	26	mg/L		1		E200.7	12/10/15 15:20 / sld	12/08/15 13:55	ICP2-HE_151210A	53	31414
Manganese	0.280	mg/L		0.001		E200.8	12/10/15 17:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	80	31414
Mercury	0.0000127	mg/L		5E-06		E245.1	12/11/15 15:47 / eli-b	12/11/15 09:21	SUB-B253692	35	B_95524
Molybdenum	0.006	mg/L		0.005		E200.8	12/10/15 17:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	80	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G
Lab ID: H15120093-001
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 15:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 17:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	80	31414
Potassium	5	mg/L		1		E200.7	12/10/15 15:20 / sld	12/08/15 13:55	ICP2-HE_151210A	53	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 17:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	80	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 17:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	80	31414
Sodium	31	mg/L		1		E200.7	12/10/15 15:20 / sld	12/08/15 13:55	ICP2-HE_151210A	53	31414
Uranium	0.0059	mg/L		0.0002		E200.8	12/10/15 17:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	80	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 17:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	80	31414
Zinc	0.055	mg/L		0.008		E200.8	12/10/15 17:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	80	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #2 (SS-06G)
Lab ID: H15120093-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 15:00 **DateReceived:** 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	ND	mg/L		1		A2540 D	12/07/15 13:32 / SR		-124 (14410200)_151207A	8	TSS151207A
Solids, Volatile Suspended	ND	mg/L		1		A2540 E	12/08/15 09:27 / SR		MISC WC_151208A	7	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	ND	mg/L		4		A2320 B	12/08/15 09:52 / SR		PHSC_101-H_151208A	19	R111512
Bicarbonate as HCO3	ND	mg/L		4		A2320 B	12/08/15 09:52 / SR		PHSC_101-H_151208A	19	R111512
Chloride	ND	mg/L		1		E300.0	12/08/15 17:40 / SR		IC102-H_151208A	22	R111543
Sulfate	ND	mg/L		1		E300.0	12/08/15 17:40 / SR		IC102-H_151208A	22	R111543
Hardness as CaCO3	ND	mg/L		1		A2340 B	12/17/15 11:52 / sld		WATERCALC_151217A	1	R111747
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	ND	mg/L		0.5		A5310 C	12/11/15 22:11 / eli-c	12/11/15 11:39	SUB-C207393	10	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	12/09/15 14:08 / SR		FIA203-HE_151209B	16	R111563
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.02		E353.2	12/08/15 09:15 / cm		FIA203-HE_151208B	19	R111531
Nitrogen, Total	ND	mg/L		0.05		A4500 N-C	12/09/15 10:51 / cm	12/08/15 10:36	FIA203-HE_151209A	17	31424
Phosphorus, Total as P	ND	mg/L		0.003		E365.1	12/08/15 12:25 / cm	12/08/15 10:34	FIA202-HE_151208B	21	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/15/15 04:18 / dck		ICPMS204-B_151214B	38	R111723
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 17:57 / dck		ICPMS204-B_151210A	81	R111621
Arsenic	ND	mg/L		0.001		E200.8	12/10/15 17:57 / dck		ICPMS204-B_151210A	81	R111621
Barium	ND	mg/L		0.003		E200.8	12/15/15 04:18 / dck		ICPMS204-B_151214B	38	R111723
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 17:57 / dck		ICPMS204-B_151210A	81	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 13:58 / sld		ICP2-HE_151208A	45	R111524
Cadmium	ND	mg/L		0.00003		E200.8	12/10/15 17:57 / dck		ICPMS204-B_151210A	81	R111621
Calcium	ND	mg/L		1		E200.7	12/08/15 13:58 / sld		ICP2-HE_151208A	45	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 17:57 / dck		ICPMS204-B_151210A	81	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 17:57 / dck		ICPMS204-B_151210A	81	R111621
Copper	ND	mg/L		0.001		E200.8	12/10/15 17:57 / dck		ICPMS204-B_151210A	81	R111621
Iron	ND	mg/L		0.02		E200.8	12/16/15 19:47 / dck		ICPMS204-B_151216A	41	R111742

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #2 (SS-06G)
Lab ID: H15120093-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 15:00 **DateReceived:** 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 17:57 / dck		ICPMS204-B_151210A	81	R111621
Magnesium	ND	mg/L		1		E200.7	12/08/15 13:58 / sld		ICP2-HE_151208A	45	R111524
Manganese	ND	mg/L		0.001		E200.8	12/10/15 17:57 / dck		ICPMS204-B_151210A	81	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 14:32 / eli-b	12/10/15 09:31	SUB-B253692	17	B_95480
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 17:57 / dck		ICPMS204-B_151210A	81	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 17:57 / dck		ICPMS204-B_151210A	81	R111621
Potassium	ND	mg/L		1		E200.7	12/08/15 13:58 / sld		ICP2-HE_151208A	45	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 17:57 / dck		ICPMS204-B_151210A	81	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 17:57 / dck		ICPMS204-B_151210A	81	R111621
Sodium	ND	mg/L		1		E200.7	12/08/15 13:58 / sld		ICP2-HE_151208A	45	R111524
Uranium	ND	mg/L		0.0002		E200.8	12/10/15 17:57 / dck		ICPMS204-B_151210A	81	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 17:57 / dck		ICPMS204-B_151210A	81	R111621
Zinc	0.015	mg/L		0.008		E200.8	12/10/15 17:57 / dck		ICPMS204-B_151210A	81	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.009		E200.8	12/15/15 04:22 / dck	12/08/15 13:55	ICPMS204-B_151214B	39	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414
Arsenic	ND	mg/L		0.001		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414
Barium	ND	mg/L		0.003		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 15:24 / sld	12/08/15 13:55	ICP2-HE_151210A	54	31414
Cadmium	ND	mg/L		0.00003		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414
Calcium	ND	mg/L		1		E200.7	12/10/15 15:24 / sld	12/08/15 13:55	ICP2-HE_151210A	54	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414
Copper	ND	mg/L		0.001		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414
Iron	ND	mg/L		0.02		E200.8	12/16/15 19:56 / dck	12/08/15 13:55	ICPMS204-B_151216A	44	31414
Lead	ND	mg/L		0.0003		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414
Magnesium	ND	mg/L		1		E200.7	12/10/15 15:24 / sld	12/08/15 13:55	ICP2-HE_151210A	54	31414
Manganese	ND	mg/L		0.001		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414
Mercury	ND	mg/L		5E-06		E245.1	12/10/15 16:03 / eli-b	12/10/15 09:33	SUB-B253629	27	B_95481
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #2 (SS-06G)
Lab ID: H15120093-002
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 15:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414
Potassium	ND	mg/L		1		E200.7	12/10/15 15:24 / sld	12/08/15 13:55	ICP2-HE_151210A	54	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414
Sodium	ND	mg/L		1		E200.7	12/10/15 15:24 / sld	12/08/15 13:55	ICP2-HE_151210A	54	31414
Uranium	ND	mg/L		0.0002		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414
Zinc	ND	mg/L		0.008		E200.8	12/10/15 18:00 / dck	12/08/15 13:55	ICPMS204-B_151210A	82	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07
Lab ID: H15120093-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 14:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	18	mg/L		1		A2540 D	12/07/15 13:32 / SR		-124 (14410200)_151207A	9	TSS151207A
Solids, Volatile Suspended	6	mg/L		1		A2540 E	12/08/15 09:28 / SR		MISC WC_151208A	8	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		4		A2320 B	12/08/15 09:56 / SR		PHSC_101-H_151208A	21	R111512
Bicarbonate as HCO3	150	mg/L		4		A2320 B	12/08/15 09:56 / SR		PHSC_101-H_151208A	21	R111512
Chloride	61	mg/L		1		E300.0	12/08/15 17:51 / SR		IC102-H_151208A	23	R111543
Sulfate	75	mg/L		1		E300.0	12/08/15 17:51 / SR		IC102-H_151208A	23	R111543
Hardness as CaCO3	194	mg/L		1		A2340 B	12/08/15 14:02 / abc		CALC_151215A	38	R111683
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.6	mg/L		0.5		A5310 C	12/11/15 22:27 / eli-c	12/11/15 11:39	SUB-C207393	11	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	4.0	mg/L	D	0.1		E350.1	12/09/15 14:47 / SR		FIA203-HE_151209B	49	R111563
Nitrogen, Nitrate+Nitrite as N	1.14	mg/L		0.02		E353.2	12/08/15 09:16 / cm		FIA203-HE_151208B	20	R111531
Nitrogen, Total	5.9	mg/L	D	0.2		A4500 N-C	12/09/15 10:55 / cm	12/08/15 10:36	FIA203-HE_151209A	20	31424
Phosphorus, Total as P	0.410	mg/L		0.003		E365.1	12/08/15 12:26 / cm	12/08/15 10:34	FIA202-HE_151208B	22	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/15/15 04:25 / dck		ICPMS204-B_151214B	40	R111723
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
Arsenic	0.002	mg/L		0.001		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
Barium	0.047	mg/L		0.003		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
Boron	0.1	mg/L		0.1		E200.7	12/08/15 14:02 / sld		ICP2-HE_151208A	46	R111524
Cadmium	0.00004	mg/L		0.00003		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
Calcium	49	mg/L		1		E200.7	12/08/15 14:02 / sld		ICP2-HE_151208A	46	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
Copper	0.004	mg/L		0.001		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
Iron	0.04	mg/L		0.02		E200.8	12/16/15 20:00 / dck		ICPMS204-B_151216A	45	R111742

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07
Lab ID: H15120093-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 14:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
Magnesium	18	mg/L		1		E200.7	12/08/15 14:02 / sld		ICP2-HE_151208A	46	R111524
Manganese	0.167	mg/L		0.001		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 14:34 / eli-b	12/10/15 09:31	SUB-B253692	18	B_95480
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
Potassium	6	mg/L		1		E200.7	12/08/15 14:02 / sld		ICP2-HE_151208A	46	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
Sodium	31	mg/L		1		E200.7	12/08/15 14:02 / sld		ICP2-HE_151208A	46	R111524
Uranium	0.0045	mg/L		0.0002		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
Zinc	0.041	mg/L		0.008		E200.8	12/10/15 18:03 / dck		ICPMS204-B_151210A	83	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.371	mg/L		0.009		E200.8	12/15/15 04:28 / dck	12/08/15 13:55	ICPMS204-B_151214B	41	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 18:06 / dck	12/08/15 13:55	ICPMS204-B_151210A	84	31414
Arsenic	0.004	mg/L		0.001		E200.8	12/10/15 18:06 / dck	12/08/15 13:55	ICPMS204-B_151210A	84	31414
Barium	0.052	mg/L		0.003		E200.8	12/10/15 18:06 / dck	12/08/15 13:55	ICPMS204-B_151210A	84	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 18:06 / dck	12/08/15 13:55	ICPMS204-B_151210A	84	31414
Boron	0.1	mg/L		0.1		E200.7	12/10/15 15:35 / sld	12/08/15 13:55	ICP2-HE_151210A	57	31414
Cadmium	0.00013	mg/L		0.00003		E200.8	12/15/15 04:28 / dck	12/08/15 13:55	ICPMS204-B_151214B	41	31414
Calcium	48	mg/L		1		E200.7	12/10/15 15:35 / sld	12/08/15 13:55	ICP2-HE_151210A	57	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 18:06 / dck	12/08/15 13:55	ICPMS204-B_151210A	84	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 18:06 / dck	12/08/15 13:55	ICPMS204-B_151210A	84	31414
Copper	0.015	mg/L		0.001		E200.8	12/10/15 18:06 / dck	12/08/15 13:55	ICPMS204-B_151210A	84	31414
Iron	0.75	mg/L		0.02		E200.8	12/15/15 04:28 / dck	12/08/15 13:55	ICPMS204-B_151214B	41	31414
Lead	0.0034	mg/L		0.0003		E200.8	12/10/15 18:06 / dck	12/08/15 13:55	ICPMS204-B_151210A	84	31414
Magnesium	18	mg/L		1		E200.7	12/10/15 15:35 / sld	12/08/15 13:55	ICP2-HE_151210A	57	31414
Manganese	0.207	mg/L		0.001		E200.8	12/10/15 18:06 / dck	12/08/15 13:55	ICPMS204-B_151210A	84	31414
Mercury	0.0000120	mg/L		5E-06		E245.1	12/11/15 15:50 / eli-b	12/11/15 09:21	SUB-B253692	36	B_95524
Molybdenum	0.005	mg/L		0.005		E200.8	12/10/15 18:06 / dck	12/08/15 13:55	ICPMS204-B_151210A	84	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07
Lab ID: H15120093-003
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 14:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 18:06 / dck	12/08/15 13:55	ICPMS204-B_151210A	84	31414
Potassium	6	mg/L		1		E200.7	12/10/15 15:35 / sld	12/08/15 13:55	ICP2-HE_151210A	57	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 18:06 / dck	12/08/15 13:55	ICPMS204-B_151210A	84	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 18:06 / dck	12/08/15 13:55	ICPMS204-B_151210A	84	31414
Sodium	33	mg/L		1		E200.7	12/10/15 15:35 / sld	12/08/15 13:55	ICP2-HE_151210A	57	31414
Uranium	0.0050	mg/L		0.0002		E200.8	12/10/15 18:06 / dck	12/08/15 13:55	ICPMS204-B_151210A	84	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 18:06 / dck	12/08/15 13:55	ICPMS204-B_151210A	84	31414
Zinc	0.064	mg/L		0.008		E200.8	12/10/15 18:06 / dck	12/08/15 13:55	ICPMS204-B_151210A	84	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08
Lab ID: H15120093-004
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 13:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	27	mg/L		1		A2540 D	12/07/15 13:32 / SR		L24 (14410200)_151207A	10	TSS151207A
Solids, Volatile Suspended	8	mg/L		1		A2540 E	12/08/15 09:28 / SR		MISC WC_151208A	9	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		4		A2320 B	12/08/15 10:02 / SR		PHSC_101-H_151208A	23	R111512
Bicarbonate as HCO3	150	mg/L		4		A2320 B	12/08/15 10:02 / SR		PHSC_101-H_151208A	23	R111512
Chloride	35	mg/L		1		E300.0	12/08/15 18:02 / SR		IC102-H_151208A	24	R111543
Sulfate	78	mg/L		1		E300.0	12/08/15 18:02 / SR		IC102-H_151208A	24	R111543
Hardness as CaCO3	175	mg/L		1		A2340 B	12/08/15 14:06 / abc		CALC_151209A	234	R111554
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	4.5	mg/L		0.5		A5310 C	12/11/15 22:43 / eli-c	12/11/15 11:39	SUB-C207393	12	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	3.0	mg/L	D	0.1		E350.1	12/09/15 14:49 / SR		FIA203-HE_151209B	50	R111563
Nitrogen, Nitrate+Nitrite as N	1.56	mg/L		0.02		E353.2	12/08/15 09:18 / cm		FIA203-HE_151208B	21	R111531
Nitrogen, Total	4.9	mg/L	D	0.2		A4500 N-C	12/09/15 10:56 / cm	12/08/15 10:36	FIA203-HE_151209A	21	31424
Phosphorus, Total as P	0.298	mg/L		0.003		E365.1	12/08/15 12:27 / cm	12/08/15 10:34	FIA202-HE_151208B	23	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/15/15 04:31 / dck		ICPMS204-B_151214B	42	R111723
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 18:09 / dck		ICPMS204-B_151210A	85	R111621
Arsenic	0.003	mg/L		0.001		E200.8	12/10/15 18:09 / dck		ICPMS204-B_151210A	85	R111621
Barium	0.044	mg/L		0.003		E200.8	12/10/15 18:09 / dck		ICPMS204-B_151210A	85	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 18:09 / dck		ICPMS204-B_151210A	85	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 14:06 / sld		ICP2-HE_151208A	47	R111524
Cadmium	ND	mg/L		0.00003		E200.8	12/15/15 04:31 / dck		ICPMS204-B_151214B	42	R111723
Calcium	49	mg/L		1		E200.7	12/08/15 14:06 / sld		ICP2-HE_151208A	47	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 18:09 / dck		ICPMS204-B_151210A	85	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 18:09 / dck		ICPMS204-B_151210A	85	R111621
Copper	0.003	mg/L		0.001		E200.8	12/10/15 18:09 / dck		ICPMS204-B_151210A	85	R111621
Iron	0.07	mg/L		0.02		E200.8	12/16/15 20:03 / dck		ICPMS204-B_151216A	46	R111742

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08
Lab ID: H15120093-004
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 13:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 18:09 / dck		ICPMS204-B_151210A	85	R111621
Magnesium	13	mg/L		1		E200.7	12/08/15 14:06 / sld		ICP2-HE_151208A	47	R111524
Manganese	0.243	mg/L		0.001		E200.8	12/10/15 18:09 / dck		ICPMS204-B_151210A	85	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 14:37 / eli-b	12/10/15 09:31	SUB-B253692	19	B_95480
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 18:09 / dck		ICPMS204-B_151210A	85	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 18:09 / dck		ICPMS204-B_151210A	85	R111621
Potassium	6	mg/L		1		E200.7	12/08/15 14:06 / sld		ICP2-HE_151208A	47	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 18:09 / dck		ICPMS204-B_151210A	85	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 18:09 / dck		ICPMS204-B_151210A	85	R111621
Sodium	29	mg/L		1		E200.7	12/08/15 14:06 / sld		ICP2-HE_151208A	47	R111524
Uranium	0.0048	mg/L		0.0002		E200.8	12/10/15 18:09 / dck		ICPMS204-B_151210A	85	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 18:09 / dck		ICPMS204-B_151210A	85	R111621
Zinc	0.050	mg/L		0.008		E200.8	12/10/15 18:09 / dck		ICPMS204-B_151210A	85	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.508	mg/L		0.009		E200.8	12/18/15 10:24 / dck	12/08/15 13:55	ICPMS204-B_151217B	33	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 18:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	86	31414
Arsenic	0.005	mg/L		0.001		E200.8	12/10/15 18:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	86	31414
Barium	0.054	mg/L		0.003		E200.8	12/10/15 18:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	86	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 18:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	86	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 15:39 / sld	12/08/15 13:55	ICP2-HE_151210A	58	31414
Cadmium	0.00027	mg/L		0.00003		E200.8	12/15/15 04:35 / dck	12/08/15 13:55	ICPMS204-B_151214B	43	31414
Calcium	49	mg/L		1		E200.7	12/10/15 15:39 / sld	12/08/15 13:55	ICP2-HE_151210A	58	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 18:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	86	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 18:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	86	31414
Copper	0.026	mg/L		0.001		E200.8	12/10/15 18:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	86	31414
Iron	1.04	mg/L		0.02		E200.7	12/10/15 15:39 / sld	12/08/15 13:55	ICP2-HE_151210A	58	31414
Lead	0.0072	mg/L		0.0003		E200.8	12/10/15 18:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	86	31414
Magnesium	13	mg/L		1		E200.7	12/10/15 15:39 / sld	12/08/15 13:55	ICP2-HE_151210A	58	31414
Manganese	0.286	mg/L		0.001		E200.8	12/10/15 18:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	86	31414
Mercury	0.0000208	mg/L		5E-06		E245.1	12/11/15 15:52 / eli-b	12/11/15 09:21	SUB-B253692	37	B_95524
Molybdenum	0.005	mg/L		0.005		E200.8	12/10/15 18:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	86	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08
Lab ID: H15120093-004
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 13:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 18:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	86	31414
Potassium	6	mg/L		1		E200.7	12/10/15 15:39 / sld	12/08/15 13:55	ICP2-HE_151210A	58	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 18:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	86	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 18:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	86	31414
Sodium	30	mg/L		1		E200.7	12/10/15 15:39 / sld	12/08/15 13:55	ICP2-HE_151210A	58	31414
Uranium	0.0054	mg/L		0.0002		E200.8	12/10/15 18:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	86	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 18:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	86	31414
Zinc	0.104	mg/L		0.008		E200.8	12/10/15 18:12 / dck	12/08/15 13:55	ICPMS204-B_151210A	86	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A
Lab ID: H15120093-005
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 12:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	40	mg/L		1		A2540 D	12/07/15 13:32 / SR		L24 (14410200)_151207A	11	TSS151207A
Solids, Volatile Suspended	11	mg/L		1		A2540 E	12/08/15 09:28 / SR		MISC WC_151208A	10	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	12/08/15 10:07 / SR		PHSC_101-H_151208A	25	R111512
Bicarbonate as HCO3	130	mg/L		4		A2320 B	12/08/15 10:07 / SR		PHSC_101-H_151208A	25	R111512
Chloride	32	mg/L		1		E300.0	12/08/15 18:13 / SR		IC102-H_151208A	25	R111543
Sulfate	86	mg/L		1		E300.0	12/08/15 18:13 / SR		IC102-H_151208A	25	R111543
Hardness as CaCO3	184	mg/L		1		A2340 B	12/08/15 14:09 / abc		CALC_151215A	49	R111683
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.4	mg/L		0.5		A5310 C	12/11/15 22:58 / eli-c	12/11/15 11:39	SUB-C207393	13	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	1.61	mg/L		0.05		E350.1	12/09/15 14:14 / SR		FIA203-HE_151209B	21	R111563
Nitrogen, Nitrate+Nitrite as N	1.92	mg/L		0.02		E353.2	12/08/15 09:19 / cm		FIA203-HE_151208B	22	R111531
Nitrogen, Total	3.73	mg/L	D	0.06		A4500 N-C	12/09/15 10:57 / cm	12/08/15 10:36	FIA203-HE_151209A	22	31424
Phosphorus, Total as P	0.306	mg/L		0.003		E365.1	12/08/15 12:28 / cm	12/08/15 10:34	FIA202-HE_151208B	24	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/15/15 04:38 / dck		ICPMS204-B_151214B	44	R111723
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 18:16 / dck		ICPMS204-B_151210A	87	R111621
Arsenic	0.003	mg/L		0.001		E200.8	12/10/15 18:16 / dck		ICPMS204-B_151210A	87	R111621
Barium	0.043	mg/L		0.003		E200.8	12/10/15 18:16 / dck		ICPMS204-B_151210A	87	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 18:16 / dck		ICPMS204-B_151210A	87	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 14:09 / sld		ICP2-HE_151208A	48	R111524
Cadmium	0.00007	mg/L		0.00003		E200.8	12/16/15 20:09 / dck		ICPMS204-B_151216A	48	R111742
Calcium	52	mg/L		1		E200.7	12/08/15 14:09 / sld		ICP2-HE_151208A	48	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 18:16 / dck		ICPMS204-B_151210A	87	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 18:16 / dck		ICPMS204-B_151210A	87	R111621
Copper	0.009	mg/L		0.001		E200.8	12/10/15 18:16 / dck		ICPMS204-B_151210A	87	R111621
Iron	0.06	mg/L		0.02		E200.8	12/16/15 20:09 / dck		ICPMS204-B_151216A	48	R111742

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A
Lab ID: H15120093-005
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 12:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 18:16 / dck		ICPMS204-B_151210A	87	R111621
Magnesium	13	mg/L		1		E200.7	12/08/15 14:09 / sld		ICP2-HE_151208A	48	R111524
Manganese	0.288	mg/L		0.001		E200.8	12/10/15 18:16 / dck		ICPMS204-B_151210A	87	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 14:39 / eli-b	12/10/15 09:31	SUB-B253692	20	B_95480
Molybdenum	0.005	mg/L		0.005		E200.8	12/10/15 18:16 / dck		ICPMS204-B_151210A	87	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 18:16 / dck		ICPMS204-B_151210A	87	R111621
Potassium	5	mg/L		1		E200.7	12/08/15 14:09 / sld		ICP2-HE_151208A	48	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 18:16 / dck		ICPMS204-B_151210A	87	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 18:16 / dck		ICPMS204-B_151210A	87	R111621
Sodium	28	mg/L		1		E200.7	12/08/15 14:09 / sld		ICP2-HE_151208A	48	R111524
Uranium	0.0054	mg/L		0.0002		E200.8	12/10/15 18:16 / dck		ICPMS204-B_151210A	87	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 18:16 / dck		ICPMS204-B_151210A	87	R111621
Zinc	0.061	mg/L		0.008		E200.8	12/10/15 18:16 / dck		ICPMS204-B_151210A	87	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.796	mg/L		0.009		E200.8	12/15/15 04:41 / dck	12/08/15 13:55	ICPMS204-B_151214B	45	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 18:19 / dck	12/08/15 13:55	ICPMS204-B_151210A	88	31414
Arsenic	0.006	mg/L		0.001		E200.8	12/10/15 18:19 / dck	12/08/15 13:55	ICPMS204-B_151210A	88	31414
Barium	0.058	mg/L		0.003		E200.8	12/10/15 18:19 / dck	12/08/15 13:55	ICPMS204-B_151210A	88	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 18:19 / dck	12/08/15 13:55	ICPMS204-B_151210A	88	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 15:43 / sld	12/08/15 13:55	ICP2-HE_151210A	59	31414
Cadmium	0.00055	mg/L		0.00003		E200.8	12/15/15 04:41 / dck	12/08/15 13:55	ICPMS204-B_151214B	45	31414
Calcium	52	mg/L		1		E200.7	12/10/15 15:43 / sld	12/08/15 13:55	ICP2-HE_151210A	59	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 18:19 / dck	12/08/15 13:55	ICPMS204-B_151210A	88	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 18:19 / dck	12/08/15 13:55	ICPMS204-B_151210A	88	31414
Copper	0.052	mg/L		0.001		E200.8	12/10/15 18:19 / dck	12/08/15 13:55	ICPMS204-B_151210A	88	31414
Iron	1.29	mg/L		0.02		E200.7	12/10/15 15:43 / sld	12/08/15 13:55	ICP2-HE_151210A	59	31414
Lead	0.0088	mg/L		0.0003		E200.8	12/10/15 18:19 / dck	12/08/15 13:55	ICPMS204-B_151210A	88	31414
Magnesium	13	mg/L		1		E200.7	12/10/15 15:43 / sld	12/08/15 13:55	ICP2-HE_151210A	59	31414
Manganese	0.363	mg/L		0.001		E200.8	12/10/15 18:19 / dck	12/08/15 13:55	ICPMS204-B_151210A	88	31414
Mercury	0.0000268	mg/L		5E-06		E245.1	12/11/15 16:00 / eli-b	12/11/15 09:21	SUB-B253692	38	B_95524
Molybdenum	0.005	mg/L		0.005		E200.8	12/10/15 18:19 / dck	12/08/15 13:55	ICPMS204-B_151210A	88	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A
Lab ID: H15120093-005
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 12:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 18:19 / dck	12/08/15 13:55	ICPMS204-B_151210A	88	31414
Potassium	6	mg/L		1		E200.7	12/10/15 15:43 / sld	12/08/15 13:55	ICP2-HE_151210A	59	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 18:19 / dck	12/08/15 13:55	ICPMS204-B_151210A	88	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 18:19 / dck	12/08/15 13:55	ICPMS204-B_151210A	88	31414
Sodium	30	mg/L		1		E200.7	12/10/15 15:43 / sld	12/08/15 13:55	ICP2-HE_151210A	59	31414
Uranium	0.0060	mg/L		0.0002		E200.8	12/10/15 18:19 / dck	12/08/15 13:55	ICPMS204-B_151210A	88	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 18:19 / dck	12/08/15 13:55	ICPMS204-B_151210A	88	31414
Zinc	0.141	mg/L		0.008		E200.8	12/10/15 18:19 / dck	12/08/15 13:55	ICPMS204-B_151210A	88	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Duplicate #2 (SS-10A
Lab ID: H15120093-006
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 12:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	40	mg/L		1		A2540 D	12/07/15 13:33 / SR		L24 (14410200)_151207A	12	TSS151207A
Solids, Volatile Suspended	11	mg/L		1		A2540 E	12/08/15 09:28 / SR		MISC WC_151208A	11	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	12/08/15 10:12 / SR		PHSC_101-H_151208A	27	R111512
Bicarbonate as HCO3	130	mg/L		4		A2320 B	12/08/15 10:12 / SR		PHSC_101-H_151208A	27	R111512
Chloride	32	mg/L		1		E300.0	12/08/15 18:25 / SR		IC102-H_151208A	26	R111543
Sulfate	85	mg/L		1		E300.0	12/08/15 18:25 / SR		IC102-H_151208A	26	R111543
Hardness as CaCO3	181	mg/L		1		A2340 B	12/08/15 14:13 / abc		CALC_151209A	245	R111554
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.4	mg/L		0.5		A5310 C	12/11/15 23:14 / eli-c	12/11/15 11:39	SUB-C207393	14	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	1.62	mg/L		0.05		E350.1	12/09/15 14:15 / SR		FIA203-HE_151209B	22	R111563
Nitrogen, Nitrate+Nitrite as N	1.97	mg/L		0.02		E353.2	12/08/15 09:20 / cm		FIA203-HE_151208B	23	R111531
Nitrogen, Total	3.9	mg/L	D	0.2		A4500 N-C	12/09/15 10:58 / cm	12/08/15 10:36	FIA203-HE_151209A	23	31424
Phosphorus, Total as P	0.285	mg/L		0.003		E365.1	12/08/15 12:29 / cm	12/08/15 10:34	FIA202-HE_151208B	25	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Arsenic	0.003	mg/L		0.001		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Barium	0.044	mg/L		0.003		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 14:13 / sld		ICP2-HE_151208A	49	R111524
Cadmium	0.00007	mg/L		0.00003		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Calcium	51	mg/L		1		E200.7	12/08/15 14:13 / sld		ICP2-HE_151208A	49	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Copper	0.009	mg/L		0.001		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Iron	0.07	mg/L		0.02		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Duplicate #2 (SS-10A
Lab ID: H15120093-006
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 12:00 **DateReceived:** 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Magnesium	13	mg/L		1		E200.7	12/08/15 14:13 / sld		ICP2-HE_151208A	49	R111524
Manganese	0.289	mg/L		0.001		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 14:42 / eli-b	12/10/15 09:31	SUB-B253692	21	B_95480
Molybdenum	0.005	mg/L		0.005		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Potassium	6	mg/L		1		E200.7	12/08/15 14:13 / sld		ICP2-HE_151208A	49	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Sodium	29	mg/L		1		E200.7	12/08/15 14:13 / sld		ICP2-HE_151208A	49	R111524
Uranium	0.0054	mg/L		0.0002		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
Zinc	0.064	mg/L		0.008		E200.8	12/10/15 18:32 / dck		ICPMS204-B_151210A	92	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.788	mg/L		0.009		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414
Arsenic	0.006	mg/L		0.001		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414
Barium	0.057	mg/L		0.003		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 15:46 / sld	12/08/15 13:55	ICP2-HE_151210A	60	31414
Cadmium	0.00057	mg/L		0.00003		E200.8	12/15/15 04:44 / dck	12/08/15 13:55	ICPMS204-B_151214B	46	31414
Calcium	52	mg/L		1		E200.7	12/10/15 15:46 / sld	12/08/15 13:55	ICP2-HE_151210A	60	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414
Copper	0.051	mg/L		0.001		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414
Iron	1.32	mg/L		0.02		E200.7	12/10/15 15:46 / sld	12/08/15 13:55	ICP2-HE_151210A	60	31414
Lead	0.0089	mg/L		0.0003		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414
Magnesium	13	mg/L		1		E200.7	12/10/15 15:46 / sld	12/08/15 13:55	ICP2-HE_151210A	60	31414
Manganese	0.385	mg/L		0.001		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414
Mercury	0.0000287	mg/L		5E-06		E245.1	12/11/15 16:02 / eli-b	12/11/15 09:21	SUB-B253692	39	B_95524
Molybdenum	0.006	mg/L		0.005		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Duplicate #2 (SS-10A
Lab ID: H15120093-006
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 12:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414
Potassium	6	mg/L		1		E200.7	12/10/15 15:46 / sld	12/08/15 13:55	ICP2-HE_151210A	60	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414
Sodium	28	mg/L		1		E200.7	12/10/15 15:46 / sld	12/08/15 13:55	ICP2-HE_151210A	60	31414
Uranium	0.0060	mg/L		0.0002		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414
Zinc	0.143	mg/L		0.008		E200.8	12/10/15 18:35 / dck	12/08/15 13:55	ICPMS204-B_151210A	93	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B
Lab ID: H15120093-007
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 11:00 **DateReceived:** 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	44	mg/L		1		A2540 D	12/07/15 13:33 / SR		L24 (14410200)_151207A	13	TSS151207A
Solids, Volatile Suspended	10	mg/L		1		A2540 E	12/08/15 09:28 / SR		MISC WC_151208A	12	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	110	mg/L		4		A2320 B	12/08/15 10:18 / SR		PHSC_101-H_151208A	29	R111512
Bicarbonate as HCO3	140	mg/L		4		A2320 B	12/08/15 10:18 / SR		PHSC_101-H_151208A	29	R111512
Chloride	32	mg/L		1		E300.0	12/08/15 18:36 / SR		IC102-H_151208A	27	R111543
Sulfate	85	mg/L		1		E300.0	12/08/15 18:36 / SR		IC102-H_151208A	27	R111543
Hardness as CaCO3	185	mg/L		1		A2340 B	12/08/15 14:17 / abc		CALC_151215A	60	R111683
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.5	mg/L		0.5		A5310 C	12/11/15 23:30 / eli-c	12/11/15 11:39	SUB-C207393	15	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	1.74	mg/L		0.05		E350.1	12/09/15 14:19 / SR		FIA203-HE_151209B	25	R111563
Nitrogen, Nitrate+Nitrite as N	1.84	mg/L		0.02		E353.2	12/08/15 10:32 / cm		FIA203-HE_151208B	58	R111531
Nitrogen, Total	4.7	mg/L	D	0.1		A4500 N-C	12/28/15 14:46 / cm	12/28/15 10:15	FIA203-HE_151229A	37	31579
Phosphorus, Total as P	0.334	mg/L		0.003		E365.1	12/08/15 12:48 / cm	12/08/15 10:34	FIA202-HE_151208B	43	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/18/15 10:40 / dck		ICPMS204-B_151217B	38	R111789
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621
Arsenic	0.003	mg/L		0.001		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621
Barium	0.043	mg/L		0.003		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 14:17 / sld		ICP2-HE_151208A	50	R111524
Cadmium	0.00007	mg/L		0.00003		E200.8	12/18/15 10:40 / dck		ICPMS204-B_151217B	38	R111789
Calcium	52	mg/L		1		E200.7	12/08/15 14:17 / sld		ICP2-HE_151208A	50	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621
Copper	0.009	mg/L		0.001		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621
Iron	0.07	mg/L		0.02		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B
Lab ID: H15120093-007
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 11:00 **DateReceived:** 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621
Magnesium	13	mg/L		1		E200.7	12/08/15 14:17 / sld		ICP2-HE_151208A	50	R111524
Manganese	0.292	mg/L		0.001		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 14:45 / eli-b	12/10/15 09:31	SUB-B253692	22	B_95480
Molybdenum	0.005	mg/L		0.005		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621
Potassium	6	mg/L		1		E200.7	12/08/15 14:17 / sld		ICP2-HE_151208A	50	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621
Sodium	29	mg/L		1		E200.7	12/08/15 14:17 / sld		ICP2-HE_151208A	50	R111524
Uranium	0.0054	mg/L		0.0002		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621
Zinc	0.070	mg/L		0.008		E200.8	12/10/15 18:38 / dck		ICPMS204-B_151210A	94	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.792	mg/L		0.009		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414
Arsenic	0.006	mg/L		0.001		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414
Barium	0.060	mg/L		0.003		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 15:50 / sld	12/08/15 13:55	ICP2-HE_151210A	61	31414
Cadmium	0.00056	mg/L		0.00003		E200.8	12/15/15 05:00 / dck	12/08/15 13:55	ICPMS204-B_151214B	51	31414
Calcium	51	mg/L		1		E200.7	12/10/15 15:50 / sld	12/08/15 13:55	ICP2-HE_151210A	61	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414
Copper	0.049	mg/L		0.001		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414
Iron	1.32	mg/L		0.02		E200.7	12/10/15 15:50 / sld	12/08/15 13:55	ICP2-HE_151210A	61	31414
Lead	0.0084	mg/L		0.0003		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414
Magnesium	13	mg/L		1		E200.7	12/10/15 15:50 / sld	12/08/15 13:55	ICP2-HE_151210A	61	31414
Manganese	0.395	mg/L		0.001		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414
Mercury	0.0000276	mg/L		5E-06		E245.1	12/10/15 16:16 / eli-b	12/10/15 09:33	SUB-B253629	32	B_95481
Molybdenum	0.005	mg/L		0.005		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B
Lab ID: H15120093-007
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 11:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414
Potassium	6	mg/L		1		E200.7	12/10/15 15:50 / sld	12/08/15 13:55	ICP2-HE_151210A	61	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414
Sodium	29	mg/L		1		E200.7	12/10/15 15:50 / sld	12/08/15 13:55	ICP2-HE_151210A	61	31414
Uranium	0.0059	mg/L		0.0002		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414
Zinc	0.141	mg/L		0.008		E200.8	12/10/15 18:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	95	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C
Lab ID: H15120093-008
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 09:45
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	16	mg/L		1		A2540 D	12/07/15 13:33 / SR		L24 (14410200)_151207A	14	TSS151207A
Solids, Volatile Suspended	5	mg/L		1		A2540 E	12/08/15 09:28 / SR		MISC WC_151208A	13	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		4		A2320 B	12/08/15 10:23 / SR		PHSC_101-H_151208A	31	R111512
Bicarbonate as HCO3	150	mg/L		4		A2320 B	12/08/15 10:23 / SR		PHSC_101-H_151208A	31	R111512
Chloride	56	mg/L		1		E300.0	12/08/15 19:42 / SR		IC102-H_151208A	33	R111543
Sulfate	92	mg/L		1		E300.0	12/08/15 19:42 / SR		IC102-H_151208A	33	R111543
Hardness as CaCO3	208	mg/L		1		A2340 B	12/08/15 14:28 / abc		CALC_151209A	256	R111554
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.5	mg/L		0.5		A5310 C	12/12/15 00:30 / eli-c	12/11/15 11:39	SUB-C207393	17	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	2.0	mg/L	D	0.1		E350.1	12/09/15 14:50 / SR		FIA203-HE_151209B	51	R111563
Nitrogen, Nitrate+Nitrite as N	1.72	mg/L		0.02		E353.2	12/08/15 10:36 / cm		FIA203-HE_151208B	61	R111531
Nitrogen, Total	4.7	mg/L	D	0.1		A4500 N-C	12/28/15 14:52 / cm	12/08/15 10:36	FIA203-HE_151229A	41	31579
Phosphorus, Total as P	0.306	mg/L		0.003		E365.1	12/08/15 12:35 / cm	12/08/15 10:34	FIA202-HE_151208B	31	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
Arsenic	0.005	mg/L		0.001		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
Barium	0.045	mg/L		0.003		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 14:28 / sld		ICP2-HE_151208A	53	R111524
Cadmium	0.00013	mg/L		0.00003		E200.8	12/16/15 20:15 / dck		ICPMS204-B_151216A	50	R111742
Calcium	61	mg/L		1		E200.7	12/08/15 14:28 / sld		ICP2-HE_151208A	53	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
Copper	0.009	mg/L		0.001		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
Iron	0.05	mg/L		0.02		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C
Lab ID: H15120093-008
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 09:45
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
Magnesium	13	mg/L		1		E200.7	12/08/15 14:28 / sld		ICP2-HE_151208A	53	R111524
Manganese	0.330	mg/L		0.001		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 14:52 / eli-b	12/10/15 09:31	SUB-B253692	23	B_95480
Molybdenum	0.005	mg/L		0.005		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
Potassium	7	mg/L		1		E200.7	12/08/15 14:28 / sld		ICP2-HE_151208A	53	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
Sodium	36	mg/L		1		E200.7	12/08/15 14:28 / sld		ICP2-HE_151208A	53	R111524
Uranium	0.0058	mg/L		0.0002		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
Zinc	0.112	mg/L		0.008		E200.8	12/10/15 18:50 / dck		ICPMS204-B_151210A	96	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.301	mg/L		0.009		E200.8	12/10/15 19:03 / dck	12/08/15 13:55	ICPMS204-B_151210A	100	31414
Antimony	ND	mg/L		0.0005		E200.8	12/15/15 05:07 / dck	12/08/15 13:55	ICPMS204-B_151214B	53	31414
Arsenic	0.006	mg/L		0.001		E200.8	12/10/15 19:03 / dck	12/08/15 13:55	ICPMS204-B_151210A	100	31414
Barium	0.051	mg/L		0.003		E200.8	12/10/15 19:03 / dck	12/08/15 13:55	ICPMS204-B_151210A	100	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 19:03 / dck	12/08/15 13:55	ICPMS204-B_151210A	100	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 15:54 / sld	12/08/15 13:55	ICP2-HE_151210A	62	31414
Cadmium	0.00039	mg/L		0.00003		E200.8	12/16/15 20:19 / dck	12/08/15 13:55	ICPMS204-B_151216A	51	31414
Calcium	65	mg/L		1		E200.7	12/10/15 15:54 / sld	12/08/15 13:55	ICP2-HE_151210A	62	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 19:03 / dck	12/08/15 13:55	ICPMS204-B_151210A	100	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 19:03 / dck	12/08/15 13:55	ICPMS204-B_151210A	100	31414
Copper	0.030	mg/L		0.001		E200.8	12/10/15 19:03 / dck	12/08/15 13:55	ICPMS204-B_151210A	100	31414
Iron	0.56	mg/L		0.02		E200.8	12/10/15 19:03 / dck	12/08/15 13:55	ICPMS204-B_151210A	100	31414
Lead	0.0035	mg/L		0.0003		E200.8	12/10/15 19:03 / dck	12/08/15 13:55	ICPMS204-B_151210A	100	31414
Magnesium	14	mg/L		1		E200.7	12/10/15 15:54 / sld	12/08/15 13:55	ICP2-HE_151210A	62	31414
Manganese	0.370	mg/L		0.001		E200.8	12/10/15 19:03 / dck	12/08/15 13:55	ICPMS204-B_151210A	100	31414
Mercury	0.0000134	mg/L		5E-06		E245.1	12/10/15 16:19 / eli-b	12/10/15 09:33	SUB-B253629	33	B_95481
Molybdenum	0.006	mg/L		0.005		E200.8	12/10/15 19:03 / dck	12/08/15 13:55	ICPMS204-B_151210A	100	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C
Lab ID: H15120093-008
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 09:45
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 19:03 / dck	12/08/15 13:55	ICPMS204-B_151210A	100	31414
Potassium	7	mg/L		1		E200.7	12/10/15 15:54 / sld	12/08/15 13:55	ICP2-HE_151210A	62	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 19:03 / dck	12/08/15 13:55	ICPMS204-B_151210A	100	31414
Silver	ND	mg/L		0.0002		E200.8	12/15/15 05:07 / dck	12/08/15 13:55	ICPMS204-B_151214B	53	31414
Sodium	36	mg/L		1		E200.7	12/10/15 15:54 / sld	12/08/15 13:55	ICP2-HE_151210A	62	31414
Uranium	0.0064	mg/L		0.0002		E200.8	12/10/15 19:03 / dck	12/08/15 13:55	ICPMS204-B_151210A	100	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 19:03 / dck	12/08/15 13:55	ICPMS204-B_151210A	100	31414
Zinc	0.141	mg/L		0.008		E200.8	12/10/15 19:03 / dck	12/08/15 13:55	ICPMS204-B_151210A	100	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D
Lab ID: H15120093-009
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 09:15
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	17	mg/L		1		A2540 D	12/07/15 13:36 / SR		L24 (14410200)_151207A	15	TSS151207A
Solids, Volatile Suspended	5	mg/L		1		A2540 E	12/08/15 09:28 / SR		MISC WC_151208A	14	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	130	mg/L		4		A2320 B	12/08/15 10:28 / SR		PHSC_101-H_151208A	33	R111512
Bicarbonate as HCO3	150	mg/L		4		A2320 B	12/08/15 10:28 / SR		PHSC_101-H_151208A	33	R111512
Chloride	52	mg/L		1		E300.0	12/08/15 19:53 / SR		IC102-H_151208A	34	R111543
Sulfate	87	mg/L		1		E300.0	12/08/15 19:53 / SR		IC102-H_151208A	34	R111543
Hardness as CaCO3	221	mg/L		1		A2340 B	12/08/15 15:30 / abc		CALC_151215A	71	R111683
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.5	mg/L		0.5		A5310 C	12/12/15 01:18 / eli-c	12/11/15 11:39	SUB-C207393	20	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	1.9	mg/L	D	0.1		E350.1	12/09/15 14:51 / SR		FIA203-HE_151209B	52	R111563
Nitrogen, Nitrate+Nitrite as N	1.69	mg/L		0.02		E353.2	12/08/15 10:37 / cm		FIA203-HE_151208B	62	R111531
Nitrogen, Total	4.6	mg/L	D	0.1		A4500 N-C	12/28/15 14:47 / cm	12/28/15 10:15	FIA203-HE_151229A	38	31579
Phosphorus, Total as P	0.293	mg/L		0.003		E365.1	12/08/15 12:36 / cm	12/08/15 10:34	FIA202-HE_151208B	32	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
Arsenic	0.005	mg/L		0.001		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
Barium	0.045	mg/L		0.003		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 15:30 / sld		ICP2-HE_151208A	69	R111524
Cadmium	0.00016	mg/L		0.00003		E200.8	12/16/15 20:31 / dck		ICPMS204-B_151216A	55	R111742
Calcium	65	mg/L		1		E200.7	12/08/15 15:30 / sld		ICP2-HE_151208A	69	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
Copper	0.009	mg/L		0.001		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
Iron	0.05	mg/L		0.02		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D
Lab ID: H15120093-009
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 09:15
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
Magnesium	14	mg/L		1		E200.7	12/08/15 15:30 / sld		ICP2-HE_151208A	69	R111524
Manganese	0.325	mg/L		0.001		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 14:55 / eli-b	12/10/15 09:31	SUB-B253692	24	B_95480
Molybdenum	0.005	mg/L		0.005		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
Potassium	7	mg/L		1		E200.7	12/08/15 15:30 / sld		ICP2-HE_151208A	69	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
Sodium	36	mg/L		1		E200.7	12/08/15 15:30 / sld		ICP2-HE_151208A	69	R111524
Uranium	0.0059	mg/L		0.0002		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
Zinc	0.108	mg/L		0.008		E200.8	12/10/15 19:25 / dck		ICPMS204-B_151210A	107	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.301	mg/L		0.009		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414
Arsenic	0.006	mg/L		0.001		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414
Barium	0.050	mg/L		0.003		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 16:09 / sld	12/08/15 13:55	ICP2-HE_151210A	66	31414
Cadmium	0.00034	mg/L		0.00003		E200.8	12/15/15 05:13 / dck	12/08/15 13:55	ICPMS204-B_151214B	55	31414
Calcium	63	mg/L		1		E200.7	12/10/15 16:09 / sld	12/08/15 13:55	ICP2-HE_151210A	66	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414
Copper	0.028	mg/L		0.001		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414
Iron	0.56	mg/L		0.02		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414
Lead	0.0034	mg/L		0.0003		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414
Magnesium	14	mg/L		1		E200.7	12/10/15 16:09 / sld	12/08/15 13:55	ICP2-HE_151210A	66	31414
Manganese	0.357	mg/L		0.001		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414
Mercury	0.0000124	mg/L		5E-06		E245.1	12/10/15 16:21 / eli-b	12/10/15 09:33	SUB-B253629	34	B_95481
Molybdenum	0.005	mg/L		0.005		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D
Lab ID: H15120093-009
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 09:15
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414
Potassium	7	mg/L		1		E200.7	12/10/15 16:09 / sld	12/08/15 13:55	ICP2-HE_151210A	66	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414
Sodium	36	mg/L		1		E200.7	12/10/15 16:09 / sld	12/08/15 13:55	ICP2-HE_151210A	66	31414
Uranium	0.0062	mg/L		0.0002		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414
Zinc	0.136	mg/L		0.008		E200.8	12/10/15 19:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	108	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13
Lab ID: H15120093-010
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 16:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	27	mg/L		1		A2540 D	12/07/15 13:37 / SR		L24 (14410200)_151207A	16	TSS151207A
Solids, Volatile Suspended	7	mg/L		1		A2540 E	12/08/15 09:28 / SR		MISC WC_151208A	15	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		4		A2320 B	12/08/15 10:34 / SR		PHSC_101-H_151208A	35	R111512
Bicarbonate as HCO3	150	mg/L		4		A2320 B	12/08/15 10:34 / SR		PHSC_101-H_151208A	35	R111512
Chloride	49	mg/L		1		E300.0	12/08/15 20:05 / SR		IC102-H_151208A	35	R111543
Sulfate	93	mg/L		1		E300.0	12/08/15 20:05 / SR		IC102-H_151208A	35	R111543
Hardness as CaCO3	216	mg/L		1		A2340 B	12/08/15 15:34 / abc		CALC_151209A	267	R111554
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.3	mg/L		0.5		A5310 C	12/12/15 01:34 / eli-c	12/11/15 11:39	SUB-C207393	21	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	1.82	mg/L		0.05		E350.1	12/09/15 14:22 / SR		FIA203-HE_151209B	28	R111563
Nitrogen, Nitrate+Nitrite as N	1.85	mg/L		0.02		E353.2	12/08/15 10:38 / cm		FIA203-HE_151208B	63	R111531
Nitrogen, Total	4.3	mg/L	D	0.2		A4500 N-C	12/11/15 13:29 / cm	12/11/15 12:52	FIA203-HE_151211C	17	31454
Phosphorus, Total as P	0.327	mg/L		0.003		E365.1	12/08/15 12:37 / cm	12/08/15 10:34	FIA202-HE_151208B	33	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
Arsenic	0.005	mg/L		0.001		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
Barium	0.044	mg/L		0.003		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 15:34 / sld		ICP2-HE_151208A	70	R111524
Cadmium	0.00013	mg/L		0.00003		E200.8	12/16/15 20:34 / dck		ICPMS204-B_151216A	56	R111742
Calcium	63	mg/L		1		E200.7	12/08/15 15:34 / sld		ICP2-HE_151208A	70	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
Copper	0.008	mg/L		0.001		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
Iron	0.04	mg/L		0.02		E200.8	12/16/15 20:34 / dck		ICPMS204-B_151216A	56	R111742

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13
Lab ID: H15120093-010
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 16:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
Magnesium	14	mg/L		1		E200.7	12/08/15 15:34 / sld		ICP2-HE_151208A	70	R111524
Manganese	0.298	mg/L		0.001		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 14:57 / eli-b	12/10/15 09:31	SUB-B253692	25	B_95480
Molybdenum	0.005	mg/L		0.005		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
Potassium	6	mg/L		1		E200.7	12/08/15 15:34 / sld		ICP2-HE_151208A	70	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
Sodium	35	mg/L		1		E200.7	12/08/15 15:34 / sld		ICP2-HE_151208A	70	R111524
Uranium	0.0061	mg/L		0.0002		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
Zinc	0.105	mg/L		0.008		E200.8	12/10/15 19:31 / dck		ICPMS204-B_151210A	109	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.570	mg/L		0.009		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414
Arsenic	0.006	mg/L		0.001		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414
Barium	0.056	mg/L		0.003		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 16:46 / sld	12/08/15 13:55	ICP2-HE_151210A	76	31414
Cadmium	0.00049	mg/L		0.00003		E200.8	12/15/15 05:32 / dck	12/08/15 13:55	ICPMS204-B_151214B	61	31414
Calcium	66	mg/L		1		E200.7	12/10/15 16:46 / sld	12/08/15 13:55	ICP2-HE_151210A	76	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414
Copper	0.033	mg/L		0.001		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414
Iron	0.85	mg/L		0.02		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414
Lead	0.0048	mg/L		0.0003		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414
Magnesium	15	mg/L		1		E200.7	12/10/15 16:46 / sld	12/08/15 13:55	ICP2-HE_151210A	76	31414
Manganese	0.393	mg/L		0.001		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414
Mercury	0.0000238	mg/L		5E-06		E245.1	12/10/15 16:39 / eli-b	12/10/15 09:36	SUB-B253629	37	B_95482
Molybdenum	0.006	mg/L		0.005		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-13
Lab ID: H15120093-010
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 16:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414
Potassium	7	mg/L		1		E200.7	12/10/15 16:46 / sld	12/08/15 13:55	ICP2-HE_151210A	76	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414
Sodium	35	mg/L		1		E200.7	12/10/15 16:46 / sld	12/08/15 13:55	ICP2-HE_151210A	76	31414
Uranium	0.0067	mg/L		0.0002		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414
Zinc	0.154	mg/L		0.008		E200.8	12/10/15 19:34 / dck	12/08/15 13:55	ICPMS204-B_151210A	110	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14
Lab ID: H15120093-011
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 15:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	26	mg/L	D	2		A2540 D	12/07/15 13:37 / SR		L24 (14410200)_151207A	17	TSS151207A
Solids, Volatile Suspended	8	mg/L		1		A2540 E	12/08/15 09:28 / SR		MISC WC_151208A	16	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	130	mg/L		4		A2320 B	12/08/15 10:40 / SR		PHSC_101-H_151208A	37	R111512
Bicarbonate as HCO3	150	mg/L		4		A2320 B	12/08/15 10:40 / SR		PHSC_101-H_151208A	37	R111512
Chloride	49	mg/L		1		E300.0	12/08/15 20:16 / SR		IC102-H_151208A	36	R111543
Sulfate	93	mg/L		1		E300.0	12/08/15 20:16 / SR		IC102-H_151208A	36	R111543
Hardness as CaCO3	217	mg/L		1		A2340 B	12/08/15 15:38 / abc		CALC_151215A	82	R111683
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.4	mg/L		0.5		A5310 C	12/12/15 01:49 / eli-c	12/11/15 11:39	SUB-C207393	22	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	2.0	mg/L	D	0.1		E350.1	12/09/15 14:52 / SR		FIA203-HE_151209B	53	R111563
Nitrogen, Nitrate+Nitrite as N	1.97	mg/L		0.02		E353.2	12/08/15 10:39 / cm		FIA203-HE_151208B	64	R111531
Nitrogen, Total	5.1	mg/L	D	0.1		A4500 N-C	12/28/15 14:49 / cm	12/28/15 10:15	FIA203-HE_151229A	39	31579
Phosphorus, Total as P	0.302	mg/L		0.003		E365.1	12/08/15 12:38 / cm	12/08/15 10:34	FIA202-HE_151208B	34	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
Arsenic	0.005	mg/L		0.001		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
Barium	0.045	mg/L		0.003		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 15:38 / sld		ICP2-HE_151208A	71	R111524
Cadmium	0.00010	mg/L		0.00003		E200.8	12/18/15 10:43 / dck		ICPMS204-B_151217B	39	R111789
Calcium	63	mg/L		1		E200.7	12/08/15 15:38 / sld		ICP2-HE_151208A	71	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
Copper	0.007	mg/L		0.001		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
Iron	0.03	mg/L		0.02		E200.8	12/16/15 20:50 / dck		ICPMS204-B_151216A	61	R111742

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14
Lab ID: H15120093-011
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 15:00 **DateReceived:** 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
Magnesium	14	mg/L		1		E200.7	12/08/15 15:38 / sld		ICP2-HE_151208A	71	R111524
Manganese	0.294	mg/L		0.001		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 15:00 / eli-b	12/10/15 09:31	SUB-B253692	26	B_95480
Molybdenum	0.005	mg/L		0.005		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
Potassium	7	mg/L		1		E200.7	12/08/15 15:38 / sld		ICP2-HE_151208A	71	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
Sodium	36	mg/L		1		E200.7	12/08/15 15:38 / sld		ICP2-HE_151208A	71	R111524
Uranium	0.0060	mg/L		0.0002		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
Zinc	0.108	mg/L		0.008		E200.8	12/10/15 19:38 / dck		ICPMS204-B_151210A	111	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.542	mg/L		0.009		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414
Arsenic	0.006	mg/L		0.001		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414
Barium	0.053	mg/L		0.003		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 16:50 / sld	12/08/15 13:55	ICP2-HE_151210A	77	31414
Cadmium	0.00044	mg/L		0.00003		E200.8	12/15/15 05:49 / dck	12/08/15 13:55	ICPMS204-B_151214B	66	31414
Calcium	64	mg/L		1		E200.7	12/10/15 16:50 / sld	12/08/15 13:55	ICP2-HE_151210A	77	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414
Copper	0.032	mg/L		0.001		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414
Iron	0.80	mg/L		0.02		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414
Lead	0.0045	mg/L		0.0003		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414
Magnesium	14	mg/L		1		E200.7	12/10/15 16:50 / sld	12/08/15 13:55	ICP2-HE_151210A	77	31414
Manganese	0.375	mg/L		0.001		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414
Mercury	0.0000166	mg/L		5E-06		E245.1	12/10/15 16:47 / eli-b	12/10/15 09:36	SUB-B253629	40	B_95482
Molybdenum	0.005	mg/L		0.005		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-14
Lab ID: H15120093-011
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 15:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414
Potassium	7	mg/L		1		E200.7	12/10/15 16:50 / sld	12/08/15 13:55	ICP2-HE_151210A	77	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414
Sodium	37	mg/L		1		E200.7	12/10/15 16:50 / sld	12/08/15 13:55	ICP2-HE_151210A	77	31414
Uranium	0.0066	mg/L		0.0002		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414
Zinc	0.158	mg/L		0.008		E200.8	12/10/15 19:41 / dck	12/08/15 13:55	ICPMS204-B_151210A	112	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Duplicate #1 (SS-14
Lab ID: H15120093-012
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 15:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	25	mg/L		1		A2540 D	12/07/15 13:37 / SR		L24 (14410200)_151207A	19	TSS151207A
Solids, Volatile Suspended	7	mg/L		1		A2540 E	12/08/15 09:28 / SR		MISC WC_151208A	18	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	130	mg/L		4		A2320 B	12/08/15 10:45 / SR		PHSC_101-H_151208A	39	R111512
Bicarbonate as HCO3	150	mg/L		4		A2320 B	12/08/15 10:45 / SR		PHSC_101-H_151208A	39	R111512
Chloride	49	mg/L		1		E300.0	12/08/15 20:27 / SR		IC102-H_151208A	37	R111543
Sulfate	90	mg/L		1		E300.0	12/08/15 20:27 / SR		IC102-H_151208A	37	R111543
Hardness as CaCO3	218	mg/L		1		A2340 B	12/08/15 15:42 / abc		CALC_151209A	278	R111554
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.4	mg/L		0.5		A5310 C	12/12/15 02:05 / eli-c	12/11/15 11:39	SUB-C207393	23	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	1.9	mg/L	D	0.2		E350.1	12/09/15 14:33 / SR		FIA203-HE_151209B	37	R111563
Nitrogen, Nitrate+Nitrite as N	2.00	mg/L		0.02		E353.2	12/08/15 10:53 / cm		FIA203-HE_151208B	76	R111531
Nitrogen, Total	4.5	mg/L	D	0.2		A4500 N-C	12/11/15 13:31 / cm	12/11/15 12:52	FIA203-HE_151211C	19	31454
Phosphorus, Total as P	0.302	mg/L		0.003		E365.1	12/08/15 12:39 / cm	12/08/15 10:34	FIA202-HE_151208B	35	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
Arsenic	0.005	mg/L		0.001		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
Barium	0.045	mg/L		0.003		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 15:42 / sld		ICP2-HE_151208A	72	R111524
Cadmium	0.00012	mg/L		0.00003		E200.8	12/16/15 20:54 / dck		ICPMS204-B_151216A	62	R111742
Calcium	64	mg/L		1		E200.7	12/08/15 15:42 / sld		ICP2-HE_151208A	72	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
Copper	0.007	mg/L		0.001		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
Iron	0.03	mg/L		0.02		E200.8	12/16/15 20:54 / dck		ICPMS204-B_151216A	62	R111742

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Duplicate #1 (SS-14
Lab ID: H15120093-012
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 15:00 **DateReceived:** 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
Magnesium	14	mg/L		1		E200.7	12/08/15 15:42 / sld		ICP2-HE_151208A	72	R111524
Manganese	0.296	mg/L		0.001		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 15:02 / eli-b	12/10/15 09:31	SUB-B253692	27	B_95480
Molybdenum	0.005	mg/L		0.005		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
Potassium	7	mg/L		1		E200.7	12/08/15 15:42 / sld		ICP2-HE_151208A	72	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
Sodium	36	mg/L		1		E200.7	12/08/15 15:42 / sld		ICP2-HE_151208A	72	R111524
Uranium	0.0061	mg/L		0.0002		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
Zinc	0.108	mg/L		0.008		E200.8	12/10/15 19:44 / dck		ICPMS204-B_151210A	113	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.556	mg/L		0.009		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414
Arsenic	0.007	mg/L		0.001		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414
Barium	0.055	mg/L		0.003		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 17:10 / sld	12/08/15 13:55	ICP2-HE_151210A	82	31414
Cadmium	0.00046	mg/L		0.00003		E200.8	12/15/15 05:55 / dck	12/08/15 13:55	ICPMS204-B_151214B	68	31414
Calcium	65	mg/L		1		E200.7	12/10/15 17:10 / sld	12/08/15 13:55	ICP2-HE_151210A	82	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414
Copper	0.032	mg/L		0.001		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414
Iron	0.83	mg/L		0.02		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414
Lead	0.0046	mg/L		0.0003		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414
Magnesium	14	mg/L		1		E200.7	12/10/15 17:10 / sld	12/08/15 13:55	ICP2-HE_151210A	82	31414
Manganese	0.378	mg/L		0.001		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414
Mercury	0.0000172	mg/L		5E-06		E245.1	12/10/15 16:49 / eli-b	12/10/15 09:36	SUB-B253629	41	B_95482
Molybdenum	0.005	mg/L		0.005		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Duplicate #1 (SS-14
Lab ID: H15120093-012
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 15:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414
Potassium	7	mg/L		1		E200.7	12/10/15 17:10 / sld	12/08/15 13:55	ICP2-HE_151210A	82	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414
Sodium	37	mg/L		1		E200.7	12/10/15 17:10 / sld	12/08/15 13:55	ICP2-HE_151210A	82	31414
Uranium	0.0066	mg/L		0.0002		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414
Zinc	0.159	mg/L		0.008		E200.8	12/10/15 19:47 / dck	12/08/15 13:55	ICPMS204-B_151210A	114	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A
Lab ID: H15120093-013
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 13:45
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	4	mg/L		1		A2540 D	12/07/15 13:38 / SR		L24 (14410200)_151207A	20	TSS151207A
Solids, Volatile Suspended	2	mg/L		1		A2540 E	12/08/15 09:28 / SR		MISC WC_151208A	19	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		4		A2320 B	12/08/15 10:51 / SR		PHSC_101-H_151208A	41	R111512
Bicarbonate as HCO3	150	mg/L		4		A2320 B	12/08/15 10:51 / SR		PHSC_101-H_151208A	41	R111512
Chloride	47	mg/L		1		E300.0	12/08/15 20:38 / SR		IC102-H_151208A	38	R111543
Sulfate	94	mg/L		1		E300.0	12/08/15 20:38 / SR		IC102-H_151208A	38	R111543
Hardness as CaCO3	216	mg/L		1		A2340 B	12/08/15 15:45 / abc		CALC_151215A	93	R111683
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.4	mg/L		0.5		A5310 C	12/12/15 02:21 / eli-c	12/11/15 11:39	SUB-C207393	24	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	1.70	mg/L		0.05		E350.1	12/09/15 14:28 / SR		FIA203-HE_151209B	33	R111563
Nitrogen, Nitrate+Nitrite as N	2.23	mg/L		0.02		E353.2	12/08/15 10:42 / cm		FIA203-HE_151208B	66	R111531
Nitrogen, Total	5.1	mg/L	D	0.1		A4500 N-C	12/28/15 14:51 / cm	12/28/15 10:15	FIA203-HE_151229A	40	31579
Phosphorus, Total as P	0.248	mg/L		0.003		E365.1	12/08/15 12:40 / cm	12/08/15 10:34	FIA202-HE_151208B	36	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
Arsenic	0.006	mg/L		0.001		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
Barium	0.043	mg/L		0.003		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 15:45 / sld		ICP2-HE_151208A	73	R111524
Cadmium	0.00023	mg/L		0.00003		E200.8	12/16/15 20:57 / dck		ICPMS204-B_151216A	63	R111742
Calcium	63	mg/L		1		E200.7	12/08/15 15:45 / sld		ICP2-HE_151208A	73	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
Copper	0.011	mg/L		0.001		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
Iron	0.02	mg/L		0.02		E200.8	12/16/15 20:57 / dck		ICPMS204-B_151216A	63	R111742

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A
Lab ID: H15120093-013
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 13:45
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
Magnesium	14	mg/L		1		E200.7	12/08/15 15:45 / sld		ICP2-HE_151208A	73	R111524
Manganese	0.195	mg/L		0.001		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 15:05 / eli-b	12/10/15 09:31	SUB-B253692	28	B_95480
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
Potassium	7	mg/L		1		E200.7	12/08/15 15:45 / sld		ICP2-HE_151208A	73	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
Sodium	35	mg/L		1		E200.7	12/08/15 15:45 / sld		ICP2-HE_151208A	73	R111524
Uranium	0.0060	mg/L		0.0002		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
Zinc	0.137	mg/L		0.008		E200.8	12/10/15 19:50 / dck		ICPMS204-B_151210A	115	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.100	mg/L		0.009		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414
Arsenic	0.006	mg/L		0.001		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414
Barium	0.045	mg/L		0.003		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 17:13 / sld	12/08/15 13:55	ICP2-HE_151210A	83	31414
Cadmium	0.00029	mg/L		0.00003		E200.8	12/16/15 21:00 / dck	12/08/15 13:55	ICPMS204-B_151216A	64	31414
Calcium	65	mg/L		1		E200.7	12/10/15 17:13 / sld	12/08/15 13:55	ICP2-HE_151210A	83	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414
Copper	0.016	mg/L		0.001		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414
Iron	0.19	mg/L		0.02		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414
Lead	0.0012	mg/L		0.0003		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414
Magnesium	15	mg/L		1		E200.7	12/10/15 17:13 / sld	12/08/15 13:55	ICP2-HE_151210A	83	31414
Manganese	0.214	mg/L		0.001		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 16:25 / eli-b	12/11/15 09:21	SUB-B253692	46	B_95524
Molybdenum	0.005	mg/L		0.005		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15A
Lab ID: H15120093-013
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 13:45
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414
Potassium	7	mg/L		1		E200.7	12/10/15 17:13 / sld	12/08/15 13:55	ICP2-HE_151210A	83	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414
Sodium	35	mg/L		1		E200.7	12/10/15 17:13 / sld	12/08/15 13:55	ICP2-HE_151210A	83	31414
Uranium	0.0065	mg/L		0.0002		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414
Zinc	0.143	mg/L		0.008		E200.8	12/10/15 19:53 / dck	12/08/15 13:55	ICPMS204-B_151210A	116	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B
Lab ID: H15120093-014
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 12:45
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	4	mg/L		1		A2540 D	12/07/15 13:38 / SR		L24 (14410200)_151207A	21	TSS151207A
Solids, Volatile Suspended	2	mg/L		1		A2540 E	12/08/15 09:28 / SR		MISC WC_151208A	20	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		4		A2320 B	12/08/15 10:57 / SR		PHSC_101-H_151208A	43	R111512
Bicarbonate as HCO3	140	mg/L		4		A2320 B	12/08/15 10:57 / SR		PHSC_101-H_151208A	43	R111512
Chloride	36	mg/L		1		E300.0	12/08/15 20:49 / SR		IC102-H_151208A	39	R111543
Sulfate	76	mg/L		1		E300.0	12/08/15 20:49 / SR		IC102-H_151208A	39	R111543
Hardness as CaCO3	199	mg/L		1		A2340 B	12/08/15 15:49 / abc		CALC_151209A	289	R111554
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	3.0	mg/L		0.5		A5310 C	12/12/15 02:36 / eli-c	12/11/15 11:39	SUB-C207393	25	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	1.30	mg/L		0.05		E350.1	12/09/15 14:29 / SR		FIA203-HE_151209B	34	R111563
Nitrogen, Nitrate+Nitrite as N	1.77	mg/L		0.02		E353.2	12/08/15 10:43 / cm		FIA203-HE_151208B	67	R111531
Nitrogen, Total	3.50	mg/L	D	0.06		A4500 N-C	12/11/15 13:33 / cm	12/11/15 12:52	FIA203-HE_151211C	21	31454
Phosphorus, Total as P	0.200	mg/L		0.003		E365.1	12/08/15 12:41 / cm	12/08/15 10:34	FIA202-HE_151208B	37	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
Arsenic	0.005	mg/L		0.001		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
Barium	0.038	mg/L		0.003		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 15:49 / sld		ICP2-HE_151208A	74	R111524
Cadmium	0.00019	mg/L		0.00003		E200.8	12/16/15 21:03 / dck		ICPMS204-B_151216A	65	R111742
Calcium	58	mg/L		1		E200.7	12/08/15 15:49 / sld		ICP2-HE_151208A	74	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
Copper	0.008	mg/L		0.001		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
Iron	0.02	mg/L		0.02		E200.8	12/16/15 21:03 / dck		ICPMS204-B_151216A	65	R111742

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B
Lab ID: H15120093-014
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 12:45
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
Magnesium	13	mg/L		1		E200.7	12/08/15 15:49 / sld		ICP2-HE_151208A	74	R111524
Manganese	0.150	mg/L		0.001		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 15:07 / eli-b	12/10/15 09:31	SUB-B253692	29	B_95480
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
Potassium	6	mg/L		1		E200.7	12/08/15 15:49 / sld		ICP2-HE_151208A	74	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
Sodium	28	mg/L		1		E200.7	12/08/15 15:49 / sld		ICP2-HE_151208A	74	R111524
Uranium	0.0048	mg/L		0.0002		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
Zinc	0.113	mg/L		0.008		E200.8	12/10/15 20:06 / dck		ICPMS204-B_151210A	120	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.085	mg/L		0.009		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414
Arsenic	0.006	mg/L		0.001		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414
Barium	0.039	mg/L		0.003		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 17:17 / sld	12/08/15 13:55	ICP2-HE_151210A	84	31414
Cadmium	0.00022	mg/L		0.00003		E200.8	12/16/15 21:06 / dck	12/08/15 13:55	ICPMS204-B_151216A	66	31414
Calcium	58	mg/L		1		E200.7	12/10/15 17:17 / sld	12/08/15 13:55	ICP2-HE_151210A	84	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414
Copper	0.013	mg/L		0.001		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414
Iron	0.15	mg/L		0.02		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414
Lead	0.0009	mg/L		0.0003		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414
Magnesium	13	mg/L		1		E200.7	12/10/15 17:17 / sld	12/08/15 13:55	ICP2-HE_151210A	84	31414
Manganese	0.161	mg/L		0.001		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 16:28 / eli-b	12/11/15 09:21	SUB-B253692	47	B_95524
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-15B
Lab ID: H15120093-014
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 12:45
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414
Potassium	6	mg/L		1		E200.7	12/10/15 17:17 / sld	12/08/15 13:55	ICP2-HE_151210A	84	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414
Sodium	28	mg/L		1		E200.7	12/10/15 17:17 / sld	12/08/15 13:55	ICP2-HE_151210A	84	31414
Uranium	0.0052	mg/L		0.0002		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414
Zinc	0.117	mg/L		0.008		E200.8	12/10/15 20:09 / dck	12/08/15 13:55	ICPMS204-B_151210A	121	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B
Lab ID: H15120093-015
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 11:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	12	mg/L		1		A2540 D	12/07/15 13:38 / SR		L24 (14410200)_151207A	22	TSS151207A
Solids, Volatile Suspended	3	mg/L		1		A2540 E	12/08/15 09:28 / SR		MISC WC_151208A	21	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		4		A2320 B	12/08/15 11:44 / SR		PHSC_101-H_151208A	56	R111512
Bicarbonate as HCO3	140	mg/L		4		A2320 B	12/08/15 11:44 / SR		PHSC_101-H_151208A	56	R111512
Chloride	36	mg/L		1		E300.0	12/08/15 21:00 / SR		IC102-H_151208A	40	R111543
Sulfate	78	mg/L		1		E300.0	12/08/15 21:00 / SR		IC102-H_151208A	40	R111543
Hardness as CaCO3	208	mg/L		1		A2340 B	12/08/15 16:00 / abc		CALC_151215A	104	R111683
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	2.9	mg/L		0.5		A5310 C	12/12/15 02:56 / eli-c	12/11/15 11:39	SUB-C207393	26	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	0.97	mg/L		0.05		E350.1	12/09/15 14:31 / SR		FIA203-HE_151209B	35	R111563
Nitrogen, Nitrate+Nitrite as N	1.83	mg/L		0.02		E353.2	12/08/15 10:44 / cm		FIA203-HE_151208B	68	R111531
Nitrogen, Total	3.41	mg/L	D	0.06		A4500 N-C	12/28/15 14:34 / cm	12/28/15 10:15	FIA203-HE_151229A	27	31579
Phosphorus, Total as P	0.198	mg/L		0.003		E365.1	12/08/15 12:42 / cm	12/08/15 10:34	FIA202-HE_151208B	38	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
Arsenic	0.005	mg/L		0.001		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
Barium	0.039	mg/L		0.003		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 16:00 / sld		ICP2-HE_151208A	77	R111524
Cadmium	0.00023	mg/L		0.00003		E200.8	12/16/15 21:19 / dck		ICPMS204-B_151216A	70	R111742
Calcium	60	mg/L		1		E200.7	12/08/15 16:00 / sld		ICP2-HE_151208A	77	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
Copper	0.008	mg/L		0.001		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
Iron	ND	mg/L		0.02		E200.8	12/16/15 21:19 / dck		ICPMS204-B_151216A	70	R111742

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B
Lab ID: H15120093-015
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 11:30 **DateReceived:** 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
Magnesium	14	mg/L		1		E200.7	12/08/15 16:00 / sld		ICP2-HE_151208A	77	R111524
Manganese	0.128	mg/L		0.001		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 15:10 / eli-b	12/10/15 09:31	SUB-B253692	30	B_95480
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
Potassium	5	mg/L		1		E200.7	12/08/15 16:00 / sld		ICP2-HE_151208A	77	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
Sodium	27	mg/L		1		E200.7	12/08/15 16:00 / sld		ICP2-HE_151208A	77	R111524
Uranium	0.0049	mg/L		0.0002		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
Zinc	0.111	mg/L		0.008		E200.8	12/10/15 20:12 / dck		ICPMS204-B_151210A	122	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.280	mg/L		0.009		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414
Arsenic	0.006	mg/L		0.001		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414
Barium	0.042	mg/L		0.003		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 17:21 / sld	12/08/15 13:55	ICP2-HE_151210A	85	31414
Cadmium	0.00035	mg/L		0.00003		E200.8	12/16/15 21:22 / dck	12/08/15 13:55	ICPMS204-B_151216A	71	31414
Calcium	57	mg/L		1		E200.7	12/10/15 17:21 / sld	12/08/15 13:55	ICP2-HE_151210A	85	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414
Copper	0.023	mg/L		0.001		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414
Iron	0.37	mg/L		0.02		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414
Lead	0.0022	mg/L		0.0003		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414
Magnesium	13	mg/L		1		E200.7	12/10/15 17:21 / sld	12/08/15 13:55	ICP2-HE_151210A	85	31414
Manganese	0.177	mg/L		0.001		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414
Mercury	9.0E-06	mg/L		5E-06		E245.1	12/10/15 16:57 / eli-b	12/10/15 09:36	SUB-B253629	44	B_95482
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-16B
Lab ID: H15120093-015
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 11:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414
Potassium	5	mg/L		1		E200.7	12/10/15 17:21 / sld	12/08/15 13:55	ICP2-HE_151210A	85	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414
Sodium	27	mg/L		1		E200.7	12/10/15 17:21 / sld	12/08/15 13:55	ICP2-HE_151210A	85	31414
Uranium	0.0052	mg/L		0.0002		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414
Zinc	0.128	mg/L		0.008		E200.8	12/10/15 20:16 / dck	12/08/15 13:55	ICPMS204-B_151210A	123	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D
Lab ID: H15120093-016
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 10:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	3	mg/L		1		A2540 D	12/07/15 13:38 / SR		L24 (14410200)_151207A	23	TSS151207A
Solids, Volatile Suspended	1	mg/L		1		A2540 E	12/08/15 09:28 / SR		MISC WC_151208A	22	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		4		A2320 B	12/08/15 11:08 / SR		PHSC_101-H_151208A	47	R111512
Bicarbonate as HCO3	140	mg/L		4		A2320 B	12/08/15 11:08 / SR		PHSC_101-H_151208A	47	R111512
Chloride	37	mg/L		1		E300.0	12/08/15 21:11 / SR		IC102-H_151208A	41	R111543
Sulfate	82	mg/L		1		E300.0	12/08/15 21:11 / SR		IC102-H_151208A	41	R111543
Hardness as CaCO3	208	mg/L		1		A2340 B	12/08/15 16:04 / abc		CALC_151209A	300	R111554
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	2.8	mg/L		0.5		A5310 C	12/12/15 03:12 / eli-c	12/11/15 11:39	SUB-C207393	27	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	0.99	mg/L		0.05		E350.1	12/09/15 14:32 / SR		FIA203-HE_151209B	36	R111563
Nitrogen, Nitrate+Nitrite as N	1.88	mg/L		0.02		E353.2	12/08/15 10:45 / cm		FIA203-HE_151208B	69	R111531
Nitrogen, Total	3.41	mg/L	D	0.06		A4500 N-C	12/28/15 14:37 / cm	12/28/15 10:15	FIA203-HE_151229A	29	31579
Phosphorus, Total as P	0.162	mg/L		0.003		E365.1	12/08/15 12:43 / cm	12/08/15 10:34	FIA202-HE_151208B	39	31423
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Arsenic	0.006	mg/L		0.001		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Barium	0.040	mg/L		0.003		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 16:04 / sld		ICP2-HE_151208A	78	R111524
Cadmium	0.00030	mg/L		0.00003		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Calcium	61	mg/L		1		E200.7	12/08/15 16:04 / sld		ICP2-HE_151208A	78	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Copper	0.012	mg/L		0.001		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Iron	0.02	mg/L		0.02		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D
Lab ID: H15120093-016
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 10:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Magnesium	14	mg/L		1		E200.7	12/08/15 16:04 / sld		ICP2-HE_151208A	78	R111524
Manganese	0.079	mg/L		0.001		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 15:12 / eli-b	12/10/15 09:31	SUB-B253692	31	B_95480
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Potassium	5	mg/L		1		E200.7	12/08/15 16:04 / sld		ICP2-HE_151208A	78	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Sodium	28	mg/L		1		E200.7	12/08/15 16:04 / sld		ICP2-HE_151208A	78	R111524
Uranium	0.0047	mg/L		0.0002		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
Zinc	0.133	mg/L		0.008		E200.8	12/10/15 20:19 / dck		ICPMS204-B_151210A	124	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.101	mg/L		0.009		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414
Arsenic	0.006	mg/L		0.001		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414
Barium	0.041	mg/L		0.003		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 17:32 / sld	12/08/15 13:55	ICP2-HE_151210A	88	31414
Cadmium	0.00032	mg/L		0.00003		E200.8	12/16/15 21:25 / dck	12/08/15 13:55	ICPMS204-B_151216A	72	31414
Calcium	59	mg/L		1		E200.7	12/10/15 17:32 / sld	12/08/15 13:55	ICP2-HE_151210A	88	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414
Copper	0.015	mg/L		0.001		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414
Iron	0.16	mg/L		0.02		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414
Lead	0.0009	mg/L		0.0003		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414
Magnesium	13	mg/L		1		E200.7	12/10/15 17:32 / sld	12/08/15 13:55	ICP2-HE_151210A	88	31414
Manganese	0.095	mg/L		0.001		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414
Mercury	ND	mg/L		5E-06		E245.1	12/10/15 16:59 / eli-b	12/10/15 09:36	SUB-B253629	45	B_95482
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D
Lab ID: H15120093-016
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 10:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414
Potassium	6	mg/L		1		E200.7	12/10/15 17:32 / sld	12/08/15 13:55	ICP2-HE_151210A	88	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414
Sodium	29	mg/L		1		E200.7	12/10/15 17:32 / sld	12/08/15 13:55	ICP2-HE_151210A	88	31414
Uranium	0.0051	mg/L		0.0002		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414
Zinc	0.138	mg/L		0.008		E200.8	12/10/15 20:22 / dck	12/08/15 13:55	ICPMS204-B_151210A	125	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19
Lab ID: H15120093-017
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 10:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	6	mg/L		1		A2540 D	12/07/15 13:39 / SR		L24 (14410200)_151207A	24	TSS151207A
Solids, Volatile Suspended	2	mg/L		1		A2540 E	12/08/15 09:28 / SR		MISC WC_151208A	23	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	120	mg/L		4		A2320 B	12/08/15 11:14 / SR		PHSC_101-H_151208A	49	R111512
Bicarbonate as HCO3	150	mg/L		4		A2320 B	12/08/15 11:14 / SR		PHSC_101-H_151208A	49	R111512
Chloride	35	mg/L		1		E300.0	12/08/15 21:22 / SR		IC102-H_151208A	42	R111543
Sulfate	80	mg/L		1		E300.0	12/08/15 21:22 / SR		IC102-H_151208A	42	R111543
Hardness as CaCO3	205	mg/L		1		A2340 B	12/08/15 16:08 / abc		CALC_151215A	115	R111683
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	2.7	mg/L		0.5		A5310 C	12/12/15 03:27 / eli-c	12/11/15 11:39	SUB-C207393	28	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	0.88	mg/L		0.05		E350.1	12/09/15 14:39 / SR		FIA203-HE_151209B	42	R111563
Nitrogen, Nitrate+Nitrite as N	1.78	mg/L		0.02		E353.2	12/08/15 10:49 / cm		FIA203-HE_151208B	72	R111531
Nitrogen, Total	2.96	mg/L	D	0.06		A4500 N-C	12/11/15 13:37 / cm	12/11/15 12:52	FIA203-HE_151211C	24	31454
Phosphorus, Total as P	0.160	mg/L		0.003		E365.1	12/14/15 12:46 / cm	12/14/15 12:11	FIA202-HE_151214B	14	31468
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Arsenic	0.006	mg/L		0.001		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Barium	0.041	mg/L		0.003		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 16:08 / sld		ICP2-HE_151208A	79	R111524
Cadmium	0.00029	mg/L		0.00003		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Calcium	60	mg/L		1		E200.7	12/08/15 16:08 / sld		ICP2-HE_151208A	79	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Copper	0.011	mg/L		0.001		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Iron	0.02	mg/L		0.02		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19
Lab ID: H15120093-017
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 10:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Magnesium	13	mg/L		1		E200.7	12/08/15 16:08 / sld		ICP2-HE_151208A	79	R111524
Manganese	0.073	mg/L		0.001		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/11/15 15:15 / eli-b	12/10/15 09:31	SUB-B253692	32	B_95480
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Potassium	5	mg/L		1		E200.7	12/08/15 16:08 / sld		ICP2-HE_151208A	79	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Sodium	29	mg/L		1		E200.7	12/08/15 16:08 / sld		ICP2-HE_151208A	79	R111524
Uranium	0.0050	mg/L		0.0002		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
Zinc	0.128	mg/L		0.008		E200.8	12/10/15 20:25 / dck		ICPMS204-B_151210A	126	R111621
METALS, TOTAL RECOVERABLE											
Aluminum	0.160	mg/L		0.009		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414
Arsenic	0.006	mg/L		0.001		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414
Barium	0.043	mg/L		0.003		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414
Boron	ND	mg/L		0.1		E200.7	12/10/15 17:36 / sld	12/08/15 13:55	ICP2-HE_151210A	89	31414
Cadmium	0.00036	mg/L		0.00003		E200.8	12/16/15 21:28 / dck	12/08/15 13:55	ICPMS204-B_151216A	73	31414
Calcium	59	mg/L		1		E200.7	12/10/15 17:36 / sld	12/08/15 13:55	ICP2-HE_151210A	89	31414
Chromium	ND	mg/L		0.01		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414
Copper	0.016	mg/L		0.001		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414
Iron	0.23	mg/L		0.02		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414
Lead	0.0013	mg/L		0.0003		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414
Magnesium	13	mg/L		1		E200.7	12/10/15 17:36 / sld	12/08/15 13:55	ICP2-HE_151210A	89	31414
Manganese	0.110	mg/L		0.001		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414
Mercury	5.7E-06	mg/L		5E-06		E245.1	12/10/15 17:01 / eli-b	12/10/15 09:36	SUB-B253629	46	B_95482
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-19
Lab ID: H15120093-017
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 10:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414
Potassium	5	mg/L		1		E200.7	12/10/15 17:36 / sld	12/08/15 13:55	ICP2-HE_151210A	89	31414
Selenium	ND	mg/L		0.001		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414
Silver	ND	mg/L		0.0002		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414
Sodium	29	mg/L		1		E200.7	12/10/15 17:36 / sld	12/08/15 13:55	ICP2-HE_151210A	89	31414
Uranium	0.0054	mg/L		0.0002		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414
Zinc	0.139	mg/L		0.008		E200.8	12/10/15 20:28 / dck	12/08/15 13:55	ICPMS204-B_151210A	127	31414

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #1 (SS-19)
Lab ID: H15120093-018
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 09:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL PROPERTIES											
Solids, Total Suspended TSS @ 105 C	ND	mg/L		1		A2540 D	12/07/15 13:39 / SR		L24 (14410200)_151207A	27	TSS151207A
Solids, Volatile Suspended	ND	mg/L		1		A2540 E	12/08/15 09:28 / SR		MISC WC_151208A	24	151208A-SLDS-VSS-
INORGANICS											
Alkalinity, Total as CaCO3	ND	mg/L		4		A2320 B	12/08/15 11:19 / SR		PHSC_101-H_151208A	51	R111512
Bicarbonate as HCO3	ND	mg/L		4		A2320 B	12/08/15 11:19 / SR		PHSC_101-H_151208A	51	R111512
Chloride	ND	mg/L		1		E300.0	12/08/15 22:40 / SR		IC102-H_151208A	49	R111543
Sulfate	ND	mg/L		1		E300.0	12/08/15 22:40 / SR		IC102-H_151208A	49	R111543
Hardness as CaCO3	ND	mg/L		1		A2340 B	12/17/15 11:52 / sld		WATERCALC_151217A	2	R111747
AGGREGATE ORGANICS											
Organic Carbon, Dissolved (DOC)	ND	mg/L		0.5		A5310 C	12/12/15 04:38 / eli-c	12/11/15 11:39	SUB-C207393	30	C_46431
NUTRIENTS											
Nitrogen, Ammonia as N	ND	mg/L		0.05		E350.1	12/16/15 12:05 / cm		FIA203-HE_151216A	11	R111733
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.02		E353.2	12/08/15 10:52 / cm		FIA203-HE_151208B	75	R111531
Nitrogen, Total	ND	mg/L		0.05		A4500 N-C	12/11/15 13:41 / cm	12/11/15 12:51	FIA203-HE_151211C	27	31454
Phosphorus, Total as P	ND	mg/L		0.003		E365.1	12/14/15 12:47 / cm	12/14/15 12:11	FIA202-HE_151214B	15	31468
METALS, DISSOLVED											
Aluminum	ND	mg/L		0.009		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Arsenic	ND	mg/L		0.001		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Barium	ND	mg/L		0.003		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Boron	ND	mg/L		0.1		E200.7	12/08/15 16:12 / sld		ICP2-HE_151208A	80	R111524
Cadmium	ND	mg/L		0.00003		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Calcium	ND	mg/L		1		E200.7	12/08/15 16:12 / sld		ICP2-HE_151208A	80	R111524
Chromium	ND	mg/L		0.01		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Copper	ND	mg/L		0.001		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Iron	ND	mg/L		0.02		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #1 (SS-19)
Lab ID: H15120093-018
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 09:30 **DateReceived:** 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, DISSOLVED											
Lead	ND	mg/L		0.0003		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Magnesium	ND	mg/L		1		E200.7	12/08/15 16:12 / sld		ICP2-HE_151208A	80	R111524
Manganese	ND	mg/L		0.001		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Mercury	ND	mg/L		5E-06		E245.1	12/14/15 16:42 / eli-b	12/14/15 10:18	SUB-B253763	7	B_95557
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Nickel	ND	mg/L		0.002		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Potassium	ND	mg/L		1		E200.7	12/08/15 16:12 / sld		ICP2-HE_151208A	80	R111524
Selenium	ND	mg/L		0.001		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Silver	ND	mg/L		0.0002		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Sodium	ND	mg/L		1		E200.7	12/08/15 16:12 / sld		ICP2-HE_151208A	80	R111524
Uranium	ND	mg/L		0.0002		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 20:31 / dck		ICPMS204-B_151210A	128	R111621
Zinc	ND	mg/L		0.008		E200.8	12/16/15 21:32 / dck		ICPMS204-B_151216A	74	R111742
METALS, TOTAL RECOVERABLE											
Aluminum	ND	mg/L		0.009		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415
Antimony	ND	mg/L		0.0005		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415
Arsenic	ND	mg/L		0.001		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415
Barium	ND	mg/L		0.003		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415
Beryllium	ND	mg/L		0.0008		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415
Boron	ND	mg/L		0.1		E200.7	12/10/15 13:34 / sld	12/08/15 13:55	ICP2-HE_151210A	25	31415
Cadmium	ND	mg/L		0.00003		E200.8	12/16/15 21:41 / dck	12/08/15 13:55	ICPMS204-B_151216A	77	31415
Calcium	ND	mg/L		1		E200.7	12/10/15 13:34 / sld	12/08/15 13:55	ICP2-HE_151210A	25	31415
Chromium	ND	mg/L		0.01		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415
Cobalt	ND	mg/L		0.01		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415
Copper	ND	mg/L		0.001		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415
Iron	ND	mg/L		0.02		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415
Lead	ND	mg/L		0.0003		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415
Magnesium	ND	mg/L		1		E200.7	12/10/15 13:34 / sld	12/08/15 13:55	ICP2-HE_151210A	25	31415
Manganese	0.002	mg/L		0.001		E200.8	12/15/15 06:40 / dck	12/08/15 13:55	ICPMS204-B_151214B	82	31415
Mercury	ND	mg/L		5E-06		E245.1	12/10/15 17:04 / eli-b	12/10/15 09:36	SUB-B253629	47	B_95482
Molybdenum	ND	mg/L		0.005		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: Field Blank #1 (SS-19)
Lab ID: H15120093-018
Matrix: Aqueous

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 09:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
METALS, TOTAL RECOVERABLE											
Nickel	ND	mg/L		0.002		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415
Potassium	ND	mg/L		1		E200.7	12/10/15 13:34 / sld	12/08/15 13:55	ICP2-HE_151210A	25	31415
Selenium	ND	mg/L		0.001		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415
Silver	ND	mg/L		0.0002		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415
Sodium	ND	mg/L		1		E200.7	12/10/15 13:34 / sld	12/08/15 13:55	ICP2-HE_151210A	25	31415
Uranium	ND	mg/L		0.0002		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415
Vanadium	ND	mg/L		0.1		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415
Zinc	ND	mg/L		0.008		E200.8	12/10/15 20:51 / dck	12/08/15 13:55	ICPMS204-B_151210A	134	31415

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G Sediment Sieve <0.065mm
Lab ID: H15120093-019
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 15:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	1.2	wt% Passed		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	7	R111708
PHYSICAL CHARACTERISTICS											
Moisture	61.7	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	8	R111840
3050 EXTRACTABLE METALS											
Aluminum	19900	mg/kg-dry		8		SW6010B	12/17/15 14:59 / sld	12/15/15 10:34	ICP2-HE_151217A	45	31476
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 18:56 / dck	12/15/15 10:34	ICPMS204-B_151217A	42	31476
Arsenic	103	mg/kg-dry		5		SW6020	12/17/15 18:56 / dck	12/15/15 10:34	ICPMS204-B_151217A	42	31476
Barium	536	mg/kg-dry		5		SW6010B	12/17/15 14:59 / sld	12/15/15 10:34	ICP2-HE_151217A	45	31476
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 14:59 / sld	12/15/15 10:34	ICP2-HE_151217A	45	31476
Boron	12	mg/kg-dry		5		SW6020	12/17/15 18:56 / dck	12/15/15 10:34	ICPMS204-B_151217A	42	31476
Cadmium	9.8	mg/kg-dry		0.4		SW6020	12/17/15 18:56 / dck	12/15/15 10:34	ICPMS204-B_151217A	42	31476
Chromium	63	mg/kg-dry		5		SW6020	12/17/15 18:56 / dck	12/15/15 10:34	ICPMS204-B_151217A	42	31476
Cobalt	17	mg/kg-dry		5		SW6020	12/17/15 18:56 / dck	12/15/15 10:34	ICPMS204-B_151217A	42	31476
Copper	877	mg/kg-dry		5		SW6010B	12/17/15 14:59 / sld	12/15/15 10:34	ICP2-HE_151217A	45	31476
Iron	34800	mg/kg-dry		7		SW6010B	12/17/15 14:59 / sld	12/15/15 10:34	ICP2-HE_151217A	45	31476
Lead	437	mg/kg-dry		5		SW6020	12/17/15 18:56 / dck	12/15/15 10:34	ICPMS204-B_151217A	42	31476
Manganese	9130	mg/kg-dry		5		SW6010B	12/17/15 14:59 / sld	12/15/15 10:34	ICP2-HE_151217A	45	31476
Molybdenum	20	mg/kg-dry		5		SW6020	12/17/15 18:56 / dck	12/15/15 10:34	ICPMS204-B_151217A	42	31476
Nickel	32	mg/kg-dry		5		SW6010B	12/17/15 14:59 / sld	12/15/15 10:34	ICP2-HE_151217A	45	31476
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 18:56 / dck	12/15/15 10:34	ICPMS204-B_151217A	42	31476
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 18:56 / dck	12/15/15 10:34	ICPMS204-B_151217A	42	31476
Uranium	7	mg/kg-dry		5		SW6020	12/17/15 18:56 / dck	12/15/15 10:34	ICPMS204-B_151217A	42	31476
Vanadium	86	mg/kg-dry		2		SW6010B	12/17/15 14:59 / sld	12/15/15 10:34	ICP2-HE_151217A	45	31476
Zinc	1800	mg/kg-dry		5		SW6010B	12/17/15 14:59 / sld	12/15/15 10:34	ICP2-HE_151217A	45	31476
METALS, TOTAL											
Mercury	0.68	mg/kg-dry		0.10		SW7471B	12/11/15 15:05 / rgk	12/11/15 08:53	HGCV201-H_151211A	24	31449

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G Sediment Sieve 0.065-1mm
Lab ID: H15120093-020
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 15:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	26.2	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	8	R111708
PHYSICAL CHARACTERISTICS											
Moisture	19.4	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	9	R111840
3050 EXTRACTABLE METALS											
Aluminum	4530	mg/kg-dry		5		SW6010B	12/17/15 16:13 / sld	12/15/15 10:35	ICP2-HE_151217A	65	31477
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 20:17 / dck	12/15/15 10:35	ICPMS204-B_151217A	67	31477
Arsenic	27	mg/kg-dry		5		SW6020	12/17/15 20:17 / dck	12/15/15 10:35	ICPMS204-B_151217A	67	31477
Barium	111	mg/kg-dry		5		SW6020	12/17/15 20:17 / dck	12/15/15 10:35	ICPMS204-B_151217A	67	31477
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 16:13 / sld	12/15/15 10:35	ICP2-HE_151217A	65	31477
Boron	ND	mg/kg-dry		5		SW6020	12/17/15 20:17 / dck	12/15/15 10:35	ICPMS204-B_151217A	67	31477
Cadmium	1.2	mg/kg-dry		0.2		SW6020	12/17/15 20:17 / dck	12/15/15 10:35	ICPMS204-B_151217A	67	31477
Chromium	7	mg/kg-dry		5		SW6020	12/17/15 20:17 / dck	12/15/15 10:35	ICPMS204-B_151217A	67	31477
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 20:17 / dck	12/15/15 10:35	ICPMS204-B_151217A	67	31477
Copper	132	mg/kg-dry		5		SW6010B	12/17/15 16:13 / sld	12/15/15 10:35	ICP2-HE_151217A	65	31477
Iron	10400	mg/kg-dry		5		SW6010B	12/17/15 16:13 / sld	12/15/15 10:35	ICP2-HE_151217A	65	31477
Lead	72	mg/kg-dry		5		SW6020	12/17/15 20:17 / dck	12/15/15 10:35	ICPMS204-B_151217A	67	31477
Manganese	1760	mg/kg-dry		5		SW6010B	12/17/15 16:13 / sld	12/15/15 10:35	ICP2-HE_151217A	65	31477
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 20:17 / dck	12/15/15 10:35	ICPMS204-B_151217A	67	31477
Nickel	ND	mg/kg-dry		5		SW6010B	12/17/15 16:13 / sld	12/15/15 10:35	ICP2-HE_151217A	65	31477
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 20:17 / dck	12/15/15 10:35	ICPMS204-B_151217A	67	31477
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 20:17 / dck	12/15/15 10:35	ICPMS204-B_151217A	67	31477
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 20:17 / dck	12/15/15 10:35	ICPMS204-B_151217A	67	31477
Vanadium	22	mg/kg-dry		1		SW6020	12/17/15 20:17 / dck	12/15/15 10:35	ICPMS204-B_151217A	67	31477
Zinc	473	mg/kg-dry		5		SW6010B	12/17/15 16:13 / sld	12/15/15 10:35	ICP2-HE_151217A	65	31477
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	12/11/15 15:07 / rgk	12/11/15 08:53	HGCV201-H_151211A	25	31449

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-06G Sediment Sieve 1-2mm
Lab ID: H15120093-021
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 15:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	51.4	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	9	R111708
PHYSICAL CHARACTERISTICS											
Moisture	15.2	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	10	R111840
3050 EXTRACTABLE METALS											
Aluminum	3310	mg/kg-dry		5		SW6010B	12/17/15 18:25 / sld	12/15/15 10:36	ICP2-HE_151217A	100	31478
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 21:37 / dck	12/15/15 10:36	ICPMS204-B_151217A	92	31478
Arsenic	91	mg/kg-dry		5		SW6020	12/17/15 21:37 / dck	12/15/15 10:36	ICPMS204-B_151217A	92	31478
Barium	111	mg/kg-dry		5		SW6010B	12/17/15 18:25 / sld	12/15/15 10:36	ICP2-HE_151217A	100	31478
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 18:25 / sld	12/15/15 10:36	ICP2-HE_151217A	100	31478
Boron	ND	mg/kg-dry		5		SW6020	12/18/15 15:17 / dck	12/15/15 10:36	ICPMS204-B_151218A	19	31478
Cadmium	0.8	mg/kg-dry		0.2		SW6020	12/17/15 21:37 / dck	12/15/15 10:36	ICPMS204-B_151217A	92	31478
Chromium	ND	mg/kg-dry		5		SW6020	12/17/15 21:37 / dck	12/15/15 10:36	ICPMS204-B_151217A	92	31478
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 21:37 / dck	12/15/15 10:36	ICPMS204-B_151217A	92	31478
Copper	459	mg/kg-dry		5		SW6010B	12/17/15 18:25 / sld	12/15/15 10:36	ICP2-HE_151217A	100	31478
Iron	8460	mg/kg-dry		5		SW6010B	12/17/15 18:25 / sld	12/15/15 10:36	ICP2-HE_151217A	100	31478
Lead	71	mg/kg-dry		5		SW6020	12/17/15 21:37 / dck	12/15/15 10:36	ICPMS204-B_151217A	92	31478
Manganese	1790	mg/kg-dry		5		SW6010B	12/17/15 18:25 / sld	12/15/15 10:36	ICP2-HE_151217A	100	31478
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 21:37 / dck	12/15/15 10:36	ICPMS204-B_151217A	92	31478
Nickel	ND	mg/kg-dry		5		SW6010B	12/17/15 18:25 / sld	12/15/15 10:36	ICP2-HE_151217A	100	31478
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 21:37 / dck	12/15/15 10:36	ICPMS204-B_151217A	92	31478
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 21:37 / dck	12/15/15 10:36	ICPMS204-B_151217A	92	31478
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 21:37 / dck	12/15/15 10:36	ICPMS204-B_151217A	92	31478
Vanadium	15	mg/kg-dry		1		SW6020	12/17/15 21:37 / dck	12/15/15 10:36	ICPMS204-B_151217A	92	31478
Zinc	313	mg/kg-dry	D	10		SW6020	12/17/15 21:37 / dck	12/15/15 10:36	ICPMS204-B_151217A	92	31478
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	12/11/15 15:15 / rgk	12/11/15 08:53	HGCV201-H_151211A	29	31449

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07 Sediment Sieve <0.065mm
Lab ID: H15120093-022
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 14:15
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	1.4	wt% Passed		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	10	R111708
PHYSICAL CHARACTERISTICS											
Moisture	63.0	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	11	R111840
3050 EXTRACTABLE METALS											
Aluminum	15400	mg/kg-dry		10		SW6010B	12/17/15 15:03 / sld	12/15/15 10:34	ICP2-HE_151217A	46	31476
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 18:59 / dck	12/15/15 10:34	ICPMS204-B_151217A	43	31476
Arsenic	120	mg/kg-dry		5		SW6020	12/17/15 18:59 / dck	12/15/15 10:34	ICPMS204-B_151217A	43	31476
Barium	403	mg/kg-dry		5		SW6010B	12/17/15 15:03 / sld	12/15/15 10:34	ICP2-HE_151217A	46	31476
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 15:03 / sld	12/15/15 10:34	ICP2-HE_151217A	46	31476
Boron	10	mg/kg-dry		6		SW6020	12/17/15 18:59 / dck	12/15/15 10:34	ICPMS204-B_151217A	43	31476
Cadmium	10.0	mg/kg-dry		0.5		SW6020	12/17/15 18:59 / dck	12/15/15 10:34	ICPMS204-B_151217A	43	31476
Chromium	63	mg/kg-dry		5		SW6020	12/17/15 18:59 / dck	12/15/15 10:34	ICPMS204-B_151217A	43	31476
Cobalt	14	mg/kg-dry		5		SW6020	12/17/15 18:59 / dck	12/15/15 10:34	ICPMS204-B_151217A	43	31476
Copper	1120	mg/kg-dry		5		SW6010B	12/17/15 15:03 / sld	12/15/15 10:34	ICP2-HE_151217A	46	31476
Iron	42800	mg/kg-dry		9		SW6010B	12/17/15 15:03 / sld	12/15/15 10:34	ICP2-HE_151217A	46	31476
Lead	542	mg/kg-dry		5		SW6020	12/17/15 18:59 / dck	12/15/15 10:34	ICPMS204-B_151217A	43	31476
Manganese	3820	mg/kg-dry		5		SW6010B	12/17/15 15:03 / sld	12/15/15 10:34	ICP2-HE_151217A	46	31476
Molybdenum	20	mg/kg-dry		5		SW6020	12/17/15 18:59 / dck	12/15/15 10:34	ICPMS204-B_151217A	43	31476
Nickel	30	mg/kg-dry		5		SW6010B	12/17/15 15:03 / sld	12/15/15 10:34	ICP2-HE_151217A	46	31476
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 18:59 / dck	12/15/15 10:34	ICPMS204-B_151217A	43	31476
Silver	6	mg/kg-dry		5		SW6020	12/17/15 18:59 / dck	12/15/15 10:34	ICPMS204-B_151217A	43	31476
Uranium	10	mg/kg-dry		5		SW6020	12/17/15 18:59 / dck	12/15/15 10:34	ICPMS204-B_151217A	43	31476
Vanadium	87	mg/kg-dry		2		SW6010B	12/17/15 15:03 / sld	12/15/15 10:34	ICP2-HE_151217A	46	31476
Zinc	5950	mg/kg-dry		5		SW6010B	12/17/15 15:03 / sld	12/15/15 10:34	ICP2-HE_151217A	46	31476
METALS, TOTAL											
Mercury	1.5	mg/kg-dry		0.10		SW7471B	12/11/15 15:30 / rgk	12/11/15 08:53	HGCV201-H_151211A	35	31449

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07 Sediment Sieve 0.065-1mm
Lab ID: H15120093-023
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 14:15
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	31.8	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	11	R111708
PHYSICAL CHARACTERISTICS											
Moisture	21.4	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	12	R111840
3050 EXTRACTABLE METALS											
Aluminum	4310	mg/kg-dry		5		SW6010B	12/17/15 16:17 / sld	12/15/15 10:35	ICP2-HE_151217A	66	31477
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 20:20 / dck	12/15/15 10:35	ICPMS204-B_151217A	68	31477
Arsenic	18	mg/kg-dry		5		SW6020	12/17/15 20:20 / dck	12/15/15 10:35	ICPMS204-B_151217A	68	31477
Barium	70	mg/kg-dry		5		SW6020	12/17/15 20:20 / dck	12/15/15 10:35	ICPMS204-B_151217A	68	31477
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 16:17 / sld	12/15/15 10:35	ICP2-HE_151217A	66	31477
Boron	ND	mg/kg-dry		5		SW6020	12/17/15 20:20 / dck	12/15/15 10:35	ICPMS204-B_151217A	68	31477
Cadmium	1.1	mg/kg-dry		0.2		SW6020	12/17/15 20:20 / dck	12/15/15 10:35	ICPMS204-B_151217A	68	31477
Chromium	11	mg/kg-dry		5		SW6020	12/17/15 20:20 / dck	12/15/15 10:35	ICPMS204-B_151217A	68	31477
Cobalt	6	mg/kg-dry		5		SW6020	12/17/15 20:20 / dck	12/15/15 10:35	ICPMS204-B_151217A	68	31477
Copper	157	mg/kg-dry		5		SW6010B	12/17/15 16:17 / sld	12/15/15 10:35	ICP2-HE_151217A	66	31477
Iron	21400	mg/kg-dry		5		SW6010B	12/17/15 16:17 / sld	12/15/15 10:35	ICP2-HE_151217A	66	31477
Lead	71	mg/kg-dry		5		SW6020	12/17/15 20:20 / dck	12/15/15 10:35	ICPMS204-B_151217A	68	31477
Manganese	533	mg/kg-dry		5		SW6010B	12/17/15 16:17 / sld	12/15/15 10:35	ICP2-HE_151217A	66	31477
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 20:20 / dck	12/15/15 10:35	ICPMS204-B_151217A	68	31477
Nickel	5	mg/kg-dry		5		SW6010B	12/17/15 16:17 / sld	12/15/15 10:35	ICP2-HE_151217A	66	31477
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 20:20 / dck	12/15/15 10:35	ICPMS204-B_151217A	68	31477
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 20:20 / dck	12/15/15 10:35	ICPMS204-B_151217A	68	31477
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 20:20 / dck	12/15/15 10:35	ICPMS204-B_151217A	68	31477
Vanadium	40	mg/kg-dry		1		SW6020	12/17/15 20:20 / dck	12/15/15 10:35	ICPMS204-B_151217A	68	31477
Zinc	654	mg/kg-dry		5		SW6010B	12/17/15 16:17 / sld	12/15/15 10:35	ICP2-HE_151217A	66	31477
METALS, TOTAL											
Mercury	0.15	mg/kg-dry		0.10		SW7471B	12/11/15 15:32 / rgk	12/11/15 08:53	HGCV201-H_151211A	36	31449

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-07 Sediment Sieve 1-2mm
Lab ID: H15120093-024
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 14:15
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	21.7	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	12	R111708
PHYSICAL CHARACTERISTICS											
Moisture	10.5	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	14	R111840
3050 EXTRACTABLE METALS											
Aluminum	4140	mg/kg-dry		5		SW6010B	12/17/15 18:28 / sld	12/15/15 10:36	ICP2-HE_151217A	101	31478
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 21:40 / dck	12/15/15 10:36	ICPMS204-B_151217A	93	31478
Arsenic	15	mg/kg-dry		5		SW6020	12/17/15 21:40 / dck	12/15/15 10:36	ICPMS204-B_151217A	93	31478
Barium	277	mg/kg-dry		5		SW6010B	12/17/15 18:28 / sld	12/15/15 10:36	ICP2-HE_151217A	101	31478
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 18:28 / sld	12/15/15 10:36	ICP2-HE_151217A	101	31478
Boron	ND	mg/kg-dry		5		SW6020	12/18/15 15:20 / dck	12/15/15 10:36	ICPMS204-B_151218A	20	31478
Cadmium	0.9	mg/kg-dry		0.2		SW6020	12/17/15 21:40 / dck	12/15/15 10:36	ICPMS204-B_151217A	93	31478
Chromium	ND	mg/kg-dry		5		SW6020	12/17/15 21:40 / dck	12/15/15 10:36	ICPMS204-B_151217A	93	31478
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 21:40 / dck	12/15/15 10:36	ICPMS204-B_151217A	93	31478
Copper	105	mg/kg-dry		5		SW6010B	12/17/15 18:28 / sld	12/15/15 10:36	ICP2-HE_151217A	101	31478
Iron	9410	mg/kg-dry		5		SW6010B	12/17/15 18:28 / sld	12/15/15 10:36	ICP2-HE_151217A	101	31478
Lead	31	mg/kg-dry		5		SW6020	12/17/15 21:40 / dck	12/15/15 10:36	ICPMS204-B_151217A	93	31478
Manganese	402	mg/kg-dry		5		SW6010B	12/17/15 18:28 / sld	12/15/15 10:36	ICP2-HE_151217A	101	31478
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 21:40 / dck	12/15/15 10:36	ICPMS204-B_151217A	93	31478
Nickel	ND	mg/kg-dry		5		SW6010B	12/17/15 18:28 / sld	12/15/15 10:36	ICP2-HE_151217A	101	31478
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 21:40 / dck	12/15/15 10:36	ICPMS204-B_151217A	93	31478
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 21:40 / dck	12/15/15 10:36	ICPMS204-B_151217A	93	31478
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 21:40 / dck	12/15/15 10:36	ICPMS204-B_151217A	93	31478
Vanadium	18	mg/kg-dry		1		SW6020	12/17/15 21:40 / dck	12/15/15 10:36	ICPMS204-B_151217A	93	31478
Zinc	334	mg/kg-dry	D	10		SW6020	12/17/15 21:40 / dck	12/15/15 10:36	ICPMS204-B_151217A	93	31478
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	12/11/15 15:21 / rgk	12/11/15 08:53	HGCV201-H_151211A	32	31449

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08 Sediment Sieve <0.065mm
Lab ID: H15120093-025
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 13:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	4.0	wt% Passed		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	13	R111708
PHYSICAL CHARACTERISTICS											
Moisture	70.1	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	15	R111840
3050 EXTRACTABLE METALS											
Aluminum	20600	mg/kg-dry		10		SW6010B	12/17/15 15:06 / sld	12/15/15 10:34	ICP2-HE_151217A	47	31476
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 19:02 / dck	12/15/15 10:34	ICPMS204-B_151217A	44	31476
Arsenic	64	mg/kg-dry		5		SW6020	12/17/15 19:02 / dck	12/15/15 10:34	ICPMS204-B_151217A	44	31476
Barium	310	mg/kg-dry		5		SW6010B	12/17/15 15:06 / sld	12/15/15 10:34	ICP2-HE_151217A	47	31476
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 15:06 / sld	12/15/15 10:34	ICP2-HE_151217A	47	31476
Boron	14	mg/kg-dry		7		SW6020	12/17/15 19:02 / dck	12/15/15 10:34	ICPMS204-B_151217A	44	31476
Cadmium	9.3	mg/kg-dry		0.5		SW6020	12/17/15 19:02 / dck	12/15/15 10:34	ICPMS204-B_151217A	44	31476
Chromium	44	mg/kg-dry		5		SW6020	12/17/15 19:02 / dck	12/15/15 10:34	ICPMS204-B_151217A	44	31476
Cobalt	11	mg/kg-dry		5		SW6020	12/17/15 19:02 / dck	12/15/15 10:34	ICPMS204-B_151217A	44	31476
Copper	817	mg/kg-dry		5		SW6010B	12/17/15 15:06 / sld	12/15/15 10:34	ICP2-HE_151217A	47	31476
Iron	29300	mg/kg-dry		9		SW6010B	12/17/15 15:06 / sld	12/15/15 10:34	ICP2-HE_151217A	47	31476
Lead	467	mg/kg-dry		5		SW6020	12/17/15 19:02 / dck	12/15/15 10:34	ICPMS204-B_151217A	44	31476
Manganese	1600	mg/kg-dry		5		SW6010B	12/17/15 15:06 / sld	12/15/15 10:34	ICP2-HE_151217A	47	31476
Molybdenum	16	mg/kg-dry		5		SW6020	12/17/15 19:02 / dck	12/15/15 10:34	ICPMS204-B_151217A	44	31476
Nickel	23	mg/kg-dry		5		SW6010B	12/17/15 15:06 / sld	12/15/15 10:34	ICP2-HE_151217A	47	31476
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 19:02 / dck	12/15/15 10:34	ICPMS204-B_151217A	44	31476
Silver	5	mg/kg-dry		5		SW6020	12/17/15 19:02 / dck	12/15/15 10:34	ICPMS204-B_151217A	44	31476
Uranium	12	mg/kg-dry		5		SW6020	12/17/15 19:02 / dck	12/15/15 10:34	ICPMS204-B_151217A	44	31476
Vanadium	63	mg/kg-dry		2		SW6010B	12/17/15 15:06 / sld	12/15/15 10:34	ICP2-HE_151217A	47	31476
Zinc	2030	mg/kg-dry		5		SW6010B	12/17/15 15:06 / sld	12/15/15 10:34	ICP2-HE_151217A	47	31476
METALS, TOTAL											
Mercury	1.7	mg/kg-dry		0.33		SW7471B	12/15/15 14:59 / AH	12/14/15 11:21	HGCV201-H_151215A	85	31460

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08 Sediment Sieve 0.065-1mm
Lab ID: H15120093-026
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 13:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	24.0	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	14	R111708
PHYSICAL CHARACTERISTICS											
Moisture	22.7	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	16	R111840
3050 EXTRACTABLE METALS											
Aluminum	4920	mg/kg-dry		5		SW6010B	12/17/15 17:10 / sld	12/15/15 10:35	ICP2-HE_151217A	80	31477
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 20:24 / dck	12/15/15 10:35	ICPMS204-B_151217A	69	31477
Arsenic	16	mg/kg-dry		5		SW6020	12/17/15 20:24 / dck	12/15/15 10:35	ICPMS204-B_151217A	69	31477
Barium	62	mg/kg-dry		5		SW6020	12/17/15 20:24 / dck	12/15/15 10:35	ICPMS204-B_151217A	69	31477
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 17:10 / sld	12/15/15 10:35	ICP2-HE_151217A	80	31477
Boron	ND	mg/kg-dry		5		SW6020	12/17/15 20:24 / dck	12/15/15 10:35	ICPMS204-B_151217A	69	31477
Cadmium	2.5	mg/kg-dry		0.2		SW6020	12/17/15 20:24 / dck	12/15/15 10:35	ICPMS204-B_151217A	69	31477
Chromium	5	mg/kg-dry		5		SW6020	12/17/15 20:24 / dck	12/15/15 10:35	ICPMS204-B_151217A	69	31477
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 20:24 / dck	12/15/15 10:35	ICPMS204-B_151217A	69	31477
Copper	160	mg/kg-dry		5		SW6010B	12/17/15 17:10 / sld	12/15/15 10:35	ICP2-HE_151217A	80	31477
Iron	8580	mg/kg-dry		5		SW6010B	12/17/15 17:10 / sld	12/15/15 10:35	ICP2-HE_151217A	80	31477
Lead	51	mg/kg-dry		5		SW6020	12/17/15 20:24 / dck	12/15/15 10:35	ICPMS204-B_151217A	69	31477
Manganese	256	mg/kg-dry		5		SW6010B	12/17/15 17:10 / sld	12/15/15 10:35	ICP2-HE_151217A	80	31477
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 20:24 / dck	12/15/15 10:35	ICPMS204-B_151217A	69	31477
Nickel	ND	mg/kg-dry		5		SW6010B	12/17/15 17:10 / sld	12/15/15 10:35	ICP2-HE_151217A	80	31477
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 20:24 / dck	12/15/15 10:35	ICPMS204-B_151217A	69	31477
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 20:24 / dck	12/15/15 10:35	ICPMS204-B_151217A	69	31477
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 20:24 / dck	12/15/15 10:35	ICPMS204-B_151217A	69	31477
Vanadium	17	mg/kg-dry		1		SW6020	12/17/15 20:24 / dck	12/15/15 10:35	ICPMS204-B_151217A	69	31477
Zinc	384	mg/kg-dry		5		SW6010B	12/17/15 17:10 / sld	12/15/15 10:35	ICP2-HE_151217A	80	31477
METALS, TOTAL											
Mercury	0.24	mg/kg-dry		0.10		SW7471B	12/15/15 10:56 / AH	12/14/15 11:21	HGCV201-H_151215A	16	31460

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-08 Sediment Sieve 1-2mm
Lab ID: H15120093-027
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 13:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	37.0	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	15	R111708
PHYSICAL CHARACTERISTICS											
Moisture	13.2	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	17	R111840
3050 EXTRACTABLE METALS											
Aluminum	3350	mg/kg-dry		5		SW6010B	12/17/15 18:32 / sld	12/15/15 10:36	ICP2-HE_151217A	102	31478
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 21:43 / dck	12/15/15 10:36	ICPMS204-B_151217A	94	31478
Arsenic	12	mg/kg-dry		5		SW6020	12/17/15 21:43 / dck	12/15/15 10:36	ICPMS204-B_151217A	94	31478
Barium	38	mg/kg-dry		5		SW6010B	12/17/15 18:32 / sld	12/15/15 10:36	ICP2-HE_151217A	102	31478
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 18:32 / sld	12/15/15 10:36	ICP2-HE_151217A	102	31478
Boron	ND	mg/kg-dry		5		SW6020	12/18/15 15:23 / dck	12/15/15 10:36	ICPMS204-B_151218A	21	31478
Cadmium	1.1	mg/kg-dry		0.2		SW6020	12/17/15 21:43 / dck	12/15/15 10:36	ICPMS204-B_151217A	94	31478
Chromium	ND	mg/kg-dry		5		SW6020	12/17/15 21:43 / dck	12/15/15 10:36	ICPMS204-B_151217A	94	31478
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 21:43 / dck	12/15/15 10:36	ICPMS204-B_151217A	94	31478
Copper	118	mg/kg-dry		5		SW6010B	12/17/15 18:32 / sld	12/15/15 10:36	ICP2-HE_151217A	102	31478
Iron	5740	mg/kg-dry		5		SW6010B	12/17/15 18:32 / sld	12/15/15 10:36	ICP2-HE_151217A	102	31478
Lead	27	mg/kg-dry		5		SW6020	12/17/15 21:43 / dck	12/15/15 10:36	ICPMS204-B_151217A	94	31478
Manganese	173	mg/kg-dry		5		SW6010B	12/17/15 18:32 / sld	12/15/15 10:36	ICP2-HE_151217A	102	31478
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 21:43 / dck	12/15/15 10:36	ICPMS204-B_151217A	94	31478
Nickel	ND	mg/kg-dry		5		SW6010B	12/17/15 18:32 / sld	12/15/15 10:36	ICP2-HE_151217A	102	31478
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 21:43 / dck	12/15/15 10:36	ICPMS204-B_151217A	94	31478
Silver	6	mg/kg-dry		5		SW6020	12/17/15 21:43 / dck	12/15/15 10:36	ICPMS204-B_151217A	94	31478
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 21:43 / dck	12/15/15 10:36	ICPMS204-B_151217A	94	31478
Vanadium	11	mg/kg-dry		1		SW6020	12/17/15 21:43 / dck	12/15/15 10:36	ICPMS204-B_151217A	94	31478
Zinc	230	mg/kg-dry	D	10		SW6020	12/17/15 21:43 / dck	12/15/15 10:36	ICPMS204-B_151217A	94	31478
METALS, TOTAL											
Mercury	0.15	mg/kg-dry		0.10		SW7471B	12/15/15 11:11 / AH	12/14/15 11:21	HGCV201-H_151215A	19	31460

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A Sediment Sieve <0.065mm
Lab ID: H15120093-028
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 12:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	16.4	wt% Passed		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	16	R111708
PHYSICAL CHARACTERISTICS											
Moisture	68.2	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	18	R111840
3050 EXTRACTABLE METALS											
Aluminum	44800	mg/kg-dry		10		SW6010B	12/17/15 15:10 / sld	12/15/15 10:34	ICP2-HE_151217A	48	31476
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 19:08 / dck	12/15/15 10:34	ICPMS204-B_151217A	45	31476
Arsenic	28	mg/kg-dry		5		SW6020	12/17/15 19:08 / dck	12/15/15 10:34	ICPMS204-B_151217A	45	31476
Barium	291	mg/kg-dry		5		SW6010B	12/17/15 15:10 / sld	12/15/15 10:34	ICP2-HE_151217A	48	31476
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 15:10 / sld	12/15/15 10:34	ICP2-HE_151217A	48	31476
Boron	13	mg/kg-dry		7		SW6020	12/17/15 19:08 / dck	12/15/15 10:34	ICPMS204-B_151217A	45	31476
Cadmium	3.3	mg/kg-dry		0.5		SW6020	12/17/15 19:08 / dck	12/15/15 10:34	ICPMS204-B_151217A	45	31476
Chromium	32	mg/kg-dry		5		SW6020	12/17/15 19:08 / dck	12/15/15 10:34	ICPMS204-B_151217A	45	31476
Cobalt	16	mg/kg-dry		5		SW6020	12/17/15 19:08 / dck	12/15/15 10:34	ICPMS204-B_151217A	45	31476
Copper	172	mg/kg-dry		5		SW6010B	12/17/15 15:10 / sld	12/15/15 10:34	ICP2-HE_151217A	48	31476
Iron	50900	mg/kg-dry		9		SW6010B	12/17/15 15:10 / sld	12/15/15 10:34	ICP2-HE_151217A	48	31476
Lead	129	mg/kg-dry		5		SW6020	12/17/15 19:08 / dck	12/15/15 10:34	ICPMS204-B_151217A	45	31476
Manganese	1420	mg/kg-dry		5		SW6010B	12/17/15 15:10 / sld	12/15/15 10:34	ICP2-HE_151217A	48	31476
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 19:08 / dck	12/15/15 10:34	ICPMS204-B_151217A	45	31476
Nickel	19	mg/kg-dry		5		SW6010B	12/17/15 15:10 / sld	12/15/15 10:34	ICP2-HE_151217A	48	31476
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 19:08 / dck	12/15/15 10:34	ICPMS204-B_151217A	45	31476
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 19:08 / dck	12/15/15 10:34	ICPMS204-B_151217A	45	31476
Uranium	8	mg/kg-dry		5		SW6020	12/17/15 19:08 / dck	12/15/15 10:34	ICPMS204-B_151217A	45	31476
Vanadium	82	mg/kg-dry		2		SW6010B	12/17/15 15:10 / sld	12/15/15 10:34	ICP2-HE_151217A	48	31476
Zinc	610	mg/kg-dry		5		SW6010B	12/17/15 15:10 / sld	12/15/15 10:34	ICP2-HE_151217A	48	31476
METALS, TOTAL											
Mercury	0.22	mg/kg-dry		0.10		SW7471B	12/15/15 11:13 / AH	12/14/15 11:21	HGCV201-H_151215A	20	31460

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-10A Sediment Sieve 0.065-1mm
Collection Date: 12/04/15 12:00
DateReceived: 12/07/15
Lab ID: H15120093-029
Report Date: 12/29/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	21.1	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	17	R111708
PHYSICAL CHARACTERISTICS											
Moisture	26.9	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	19	R111840
3050 EXTRACTABLE METALS											
Aluminum	8000	mg/kg-dry		5		SW6010B	12/17/15 17:14 / sld	12/15/15 10:35	ICP2-HE_151217A	81	31477
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 20:27 / dck	12/15/15 10:35	ICPMS204-B_151217A	70	31477
Arsenic	7	mg/kg-dry		5		SW6020	12/17/15 20:27 / dck	12/15/15 10:35	ICPMS204-B_151217A	70	31477
Barium	127	mg/kg-dry		5		SW6020	12/17/15 20:27 / dck	12/15/15 10:35	ICPMS204-B_151217A	70	31477
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 17:14 / sld	12/15/15 10:35	ICP2-HE_151217A	81	31477
Boron	ND	mg/kg-dry		5		SW6020	12/17/15 20:27 / dck	12/15/15 10:35	ICPMS204-B_151217A	70	31477
Cadmium	1.1	mg/kg-dry		0.2		SW6020	12/17/15 20:27 / dck	12/15/15 10:35	ICPMS204-B_151217A	70	31477
Chromium	17	mg/kg-dry		5		SW6020	12/17/15 20:27 / dck	12/15/15 10:35	ICPMS204-B_151217A	70	31477
Cobalt	6	mg/kg-dry		5		SW6020	12/17/15 20:27 / dck	12/15/15 10:35	ICPMS204-B_151217A	70	31477
Copper	54	mg/kg-dry		5		SW6010B	12/17/15 17:14 / sld	12/15/15 10:35	ICP2-HE_151217A	81	31477
Iron	29800	mg/kg-dry		5		SW6010B	12/17/15 17:14 / sld	12/15/15 10:35	ICP2-HE_151217A	81	31477
Lead	29	mg/kg-dry		5		SW6020	12/17/15 20:27 / dck	12/15/15 10:35	ICPMS204-B_151217A	70	31477
Manganese	531	mg/kg-dry		5		SW6010B	12/17/15 17:14 / sld	12/15/15 10:35	ICP2-HE_151217A	81	31477
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 20:27 / dck	12/15/15 10:35	ICPMS204-B_151217A	70	31477
Nickel	ND	mg/kg-dry		5		SW6010B	12/17/15 17:14 / sld	12/15/15 10:35	ICP2-HE_151217A	81	31477
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 20:27 / dck	12/15/15 10:35	ICPMS204-B_151217A	70	31477
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 20:27 / dck	12/15/15 10:35	ICPMS204-B_151217A	70	31477
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 20:27 / dck	12/15/15 10:35	ICPMS204-B_151217A	70	31477
Vanadium	83	mg/kg-dry		1		SW6020	12/17/15 20:27 / dck	12/15/15 10:35	ICPMS204-B_151217A	70	31477
Zinc	188	mg/kg-dry		5		SW6010B	12/17/15 17:14 / sld	12/15/15 10:35	ICP2-HE_151217A	81	31477
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	12/15/15 11:15 / AH	12/14/15 11:21	HGCV201-H_151215A	21	31460

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10A Sediment Sieve 1-2mm
Lab ID: H15120093-030
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 12:00
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	12.3	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	18	R111708
PHYSICAL CHARACTERISTICS											
Moisture	21.7	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	20	R111840
3050 EXTRACTABLE METALS											
Aluminum	5660	mg/kg-dry		5		SW6010B	12/17/15 18:36 / sld	12/15/15 10:36	ICP2-HE_151217A	103	31478
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 21:46 / dck	12/15/15 10:36	ICPMS204-B_151217A	95	31478
Arsenic	ND	mg/kg-dry		5		SW6020	12/17/15 21:46 / dck	12/15/15 10:36	ICPMS204-B_151217A	95	31478
Barium	78	mg/kg-dry		5		SW6010B	12/17/15 18:36 / sld	12/15/15 10:36	ICP2-HE_151217A	103	31478
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 18:36 / sld	12/15/15 10:36	ICP2-HE_151217A	103	31478
Boron	ND	mg/kg-dry		5		SW6020	12/18/15 15:26 / dck	12/15/15 10:36	ICPMS204-B_151218A	22	31478
Cadmium	0.3	mg/kg-dry		0.2		SW6020	12/17/15 21:46 / dck	12/15/15 10:36	ICPMS204-B_151217A	95	31478
Chromium	ND	mg/kg-dry		5		SW6020	12/17/15 21:46 / dck	12/15/15 10:36	ICPMS204-B_151217A	95	31478
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 21:46 / dck	12/15/15 10:36	ICPMS204-B_151217A	95	31478
Copper	27	mg/kg-dry		5		SW6010B	12/17/15 18:36 / sld	12/15/15 10:36	ICP2-HE_151217A	103	31478
Iron	8100	mg/kg-dry		5		SW6010B	12/17/15 18:36 / sld	12/15/15 10:36	ICP2-HE_151217A	103	31478
Lead	13	mg/kg-dry		5		SW6020	12/17/15 21:46 / dck	12/15/15 10:36	ICPMS204-B_151217A	95	31478
Manganese	423	mg/kg-dry		5		SW6010B	12/17/15 18:36 / sld	12/15/15 10:36	ICP2-HE_151217A	103	31478
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 21:46 / dck	12/15/15 10:36	ICPMS204-B_151217A	95	31478
Nickel	ND	mg/kg-dry		5		SW6010B	12/17/15 18:36 / sld	12/15/15 10:36	ICP2-HE_151217A	103	31478
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 21:46 / dck	12/15/15 10:36	ICPMS204-B_151217A	95	31478
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 21:46 / dck	12/15/15 10:36	ICPMS204-B_151217A	95	31478
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 21:46 / dck	12/15/15 10:36	ICPMS204-B_151217A	95	31478
Vanadium	12	mg/kg-dry		1		SW6020	12/17/15 21:46 / dck	12/15/15 10:36	ICPMS204-B_151217A	95	31478
Zinc	76	mg/kg-dry	D	10		SW6020	12/17/15 21:46 / dck	12/15/15 10:36	ICPMS204-B_151217A	95	31478
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	12/15/15 11:17 / AH	12/14/15 11:21	HGCV201-H_151215A	22	31460

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B Sediment Sieve <0.065mm
Lab ID: H15120093-031
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 11:15
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	13.9	wt% Passed		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	19	R111708
PHYSICAL CHARACTERISTICS											
Moisture	71.6	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	22	R111840
3050 EXTRACTABLE METALS											
Aluminum	20900	mg/kg-dry		10		SW6010B	12/17/15 15:14 / sld	12/15/15 10:34	ICP2-HE_151217A	49	31476
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 19:11 / dck	12/15/15 10:34	ICPMS204-B_151217A	46	31476
Arsenic	39	mg/kg-dry		5		SW6020	12/17/15 19:11 / dck	12/15/15 10:34	ICPMS204-B_151217A	46	31476
Barium	325	mg/kg-dry		5		SW6010B	12/17/15 15:14 / sld	12/15/15 10:34	ICP2-HE_151217A	49	31476
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 15:14 / sld	12/15/15 10:34	ICP2-HE_151217A	49	31476
Boron	14	mg/kg-dry		7		SW6020	12/17/15 19:11 / dck	12/15/15 10:34	ICPMS204-B_151217A	46	31476
Cadmium	8.2	mg/kg-dry		0.6		SW6020	12/17/15 19:11 / dck	12/15/15 10:34	ICPMS204-B_151217A	46	31476
Chromium	20	mg/kg-dry		5		SW6020	12/17/15 19:11 / dck	12/15/15 10:34	ICPMS204-B_151217A	46	31476
Cobalt	11	mg/kg-dry		5		SW6020	12/17/15 19:11 / dck	12/15/15 10:34	ICPMS204-B_151217A	46	31476
Copper	665	mg/kg-dry		5		SW6010B	12/17/15 15:14 / sld	12/15/15 10:34	ICP2-HE_151217A	49	31476
Iron	23700	mg/kg-dry		10		SW6010B	12/17/15 15:14 / sld	12/15/15 10:34	ICP2-HE_151217A	49	31476
Lead	182	mg/kg-dry		5		SW6020	12/17/15 19:11 / dck	12/15/15 10:34	ICPMS204-B_151217A	46	31476
Manganese	1720	mg/kg-dry		5		SW6010B	12/17/15 15:14 / sld	12/15/15 10:34	ICP2-HE_151217A	49	31476
Molybdenum	8	mg/kg-dry		5		SW6020	12/17/15 19:11 / dck	12/15/15 10:34	ICPMS204-B_151217A	46	31476
Nickel	14	mg/kg-dry		5		SW6010B	12/17/15 15:14 / sld	12/15/15 10:34	ICP2-HE_151217A	49	31476
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 19:11 / dck	12/15/15 10:34	ICPMS204-B_151217A	46	31476
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 19:11 / dck	12/15/15 10:34	ICPMS204-B_151217A	46	31476
Uranium	8	mg/kg-dry		5		SW6020	12/17/15 19:11 / dck	12/15/15 10:34	ICPMS204-B_151217A	46	31476
Vanadium	41	mg/kg-dry		2		SW6010B	12/17/15 15:14 / sld	12/15/15 10:34	ICP2-HE_151217A	49	31476
Zinc	1750	mg/kg-dry		5		SW6010B	12/17/15 15:14 / sld	12/15/15 10:34	ICP2-HE_151217A	49	31476
METALS, TOTAL											
Mercury	1.0	mg/kg-dry		0.10		SW7471B	12/16/15 12:40 / rgk	12/16/15 07:58	HGCV201-H_151216A	13	31488

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B Sediment Sieve 0.065-1mm
Lab ID: H15120093-032
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 11:15
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	21.7	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	20	R111708
PHYSICAL CHARACTERISTICS											
Moisture	40.4	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	23	R111840
3050 EXTRACTABLE METALS											
Aluminum	9340	mg/kg-dry		6		SW6010B	12/17/15 17:18 / sld	12/15/15 10:35	ICP2-HE_151217A	82	31477
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 20:40 / dck	12/15/15 10:35	ICPMS204-B_151217A	74	31477
Arsenic	8	mg/kg-dry		5		SW6020	12/17/15 20:40 / dck	12/15/15 10:35	ICPMS204-B_151217A	74	31477
Barium	133	mg/kg-dry		5		SW6020	12/17/15 20:40 / dck	12/15/15 10:35	ICPMS204-B_151217A	74	31477
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 17:18 / sld	12/15/15 10:35	ICP2-HE_151217A	82	31477
Boron	ND	mg/kg-dry		5		SW6020	12/17/15 20:40 / dck	12/15/15 10:35	ICPMS204-B_151217A	74	31477
Cadmium	3.0	mg/kg-dry		0.3		SW6020	12/17/15 20:40 / dck	12/15/15 10:35	ICPMS204-B_151217A	74	31477
Chromium	11	mg/kg-dry		5		SW6020	12/17/15 20:40 / dck	12/15/15 10:35	ICPMS204-B_151217A	74	31477
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 20:40 / dck	12/15/15 10:35	ICPMS204-B_151217A	74	31477
Copper	167	mg/kg-dry		5		SW6010B	12/17/15 17:18 / sld	12/15/15 10:35	ICP2-HE_151217A	82	31477
Iron	19200	mg/kg-dry		5		SW6010B	12/17/15 17:18 / sld	12/15/15 10:35	ICP2-HE_151217A	82	31477
Lead	39	mg/kg-dry		5		SW6020	12/17/15 20:40 / dck	12/15/15 10:35	ICPMS204-B_151217A	74	31477
Manganese	556	mg/kg-dry		5		SW6010B	12/17/15 17:18 / sld	12/15/15 10:35	ICP2-HE_151217A	82	31477
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 20:40 / dck	12/15/15 10:35	ICPMS204-B_151217A	74	31477
Nickel	ND	mg/kg-dry		5		SW6010B	12/17/15 17:18 / sld	12/15/15 10:35	ICP2-HE_151217A	82	31477
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 20:40 / dck	12/15/15 10:35	ICPMS204-B_151217A	74	31477
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 20:40 / dck	12/15/15 10:35	ICPMS204-B_151217A	74	31477
Uranium	11	mg/kg-dry		5		SW6020	12/17/15 20:40 / dck	12/15/15 10:35	ICPMS204-B_151217A	74	31477
Vanadium	45	mg/kg-dry		1		SW6020	12/17/15 20:40 / dck	12/15/15 10:35	ICPMS204-B_151217A	74	31477
Zinc	459	mg/kg-dry		5		SW6010B	12/17/15 17:18 / sld	12/15/15 10:35	ICP2-HE_151217A	82	31477
METALS, TOTAL											
Mercury	0.19	mg/kg-dry		0.10		SW7471B	12/16/15 13:05 / rgk	12/16/15 07:58	HGCV201-H_151216A	18	31488

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-10B Sediment Sieve 1-2mm
Lab ID: H15120093-033
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 11:15
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	7.3	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	21	R111708
PHYSICAL CHARACTERISTICS											
Moisture	30.4	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	24	R111840
3050 EXTRACTABLE METALS											
Aluminum	6150	mg/kg-dry		5		SW6010B	12/17/15 18:39 / sld	12/15/15 10:36	ICP2-HE_151217A	104	31478
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 21:59 / dck	12/15/15 10:36	ICPMS204-B_151217A	99	31478
Arsenic	30	mg/kg-dry		5		SW6020	12/17/15 21:59 / dck	12/15/15 10:36	ICPMS204-B_151217A	99	31478
Barium	85	mg/kg-dry		5		SW6010B	12/17/15 18:39 / sld	12/15/15 10:36	ICP2-HE_151217A	104	31478
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 18:39 / sld	12/15/15 10:36	ICP2-HE_151217A	104	31478
Boron	ND	mg/kg-dry		5		SW6020	12/18/15 15:30 / dck	12/15/15 10:36	ICPMS204-B_151218A	23	31478
Cadmium	1.1	mg/kg-dry		0.2		SW6020	12/17/15 21:59 / dck	12/15/15 10:36	ICPMS204-B_151217A	99	31478
Chromium	ND	mg/kg-dry		5		SW6020	12/17/15 21:59 / dck	12/15/15 10:36	ICPMS204-B_151217A	99	31478
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 21:59 / dck	12/15/15 10:36	ICPMS204-B_151217A	99	31478
Copper	113	mg/kg-dry		5		SW6010B	12/17/15 18:39 / sld	12/15/15 10:36	ICP2-HE_151217A	104	31478
Iron	5970	mg/kg-dry		5		SW6010B	12/17/15 18:39 / sld	12/15/15 10:36	ICP2-HE_151217A	104	31478
Lead	28	mg/kg-dry		5		SW6020	12/17/15 21:59 / dck	12/15/15 10:36	ICPMS204-B_151217A	99	31478
Manganese	510	mg/kg-dry		5		SW6010B	12/17/15 18:39 / sld	12/15/15 10:36	ICP2-HE_151217A	104	31478
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 21:59 / dck	12/15/15 10:36	ICPMS204-B_151217A	99	31478
Nickel	ND	mg/kg-dry		5		SW6010B	12/17/15 18:39 / sld	12/15/15 10:36	ICP2-HE_151217A	104	31478
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 21:59 / dck	12/15/15 10:36	ICPMS204-B_151217A	99	31478
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 21:59 / dck	12/15/15 10:36	ICPMS204-B_151217A	99	31478
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 21:59 / dck	12/15/15 10:36	ICPMS204-B_151217A	99	31478
Vanadium	8	mg/kg-dry		1		SW6020	12/17/15 21:59 / dck	12/15/15 10:36	ICPMS204-B_151217A	99	31478
Zinc	230	mg/kg-dry	D	20		SW6020	12/17/15 21:59 / dck	12/15/15 10:36	ICPMS204-B_151217A	99	31478
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	12/16/15 13:07 / rgk	12/16/15 07:58	HGCV201-H_151216A	19	31488

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: Sediment Duplicate #2 (SS-10B) Sediment Sieve <0.065mm
Collection Date: 12/04/15 11:00
DateReceived: 12/07/15
Lab ID: H15120093-034
Report Date: 12/29/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	17.4	wt% Passed		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	22	R111708
PHYSICAL CHARACTERISTICS											
Moisture	74.5	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	25	R111840
3050 EXTRACTABLE METALS											
Aluminum	26000	mg/kg-dry		10		SW6010B	12/17/15 15:17 / sld	12/15/15 10:34	ICP2-HE_151217A	50	31476
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 19:24 / dck	12/15/15 10:34	ICPMS204-B_151217A	50	31476
Arsenic	38	mg/kg-dry		5		SW6020	12/17/15 19:24 / dck	12/15/15 10:34	ICPMS204-B_151217A	50	31476
Barium	418	mg/kg-dry		5		SW6010B	12/17/15 15:17 / sld	12/15/15 10:34	ICP2-HE_151217A	50	31476
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 15:17 / sld	12/15/15 10:34	ICP2-HE_151217A	50	31476
Boron	13	mg/kg-dry		8		SW6020	12/17/15 19:24 / dck	12/15/15 10:34	ICPMS204-B_151217A	50	31476
Cadmium	7.6	mg/kg-dry		0.7		SW6020	12/17/15 19:24 / dck	12/15/15 10:34	ICPMS204-B_151217A	50	31476
Chromium	28	mg/kg-dry		5		SW6020	12/17/15 19:24 / dck	12/15/15 10:34	ICPMS204-B_151217A	50	31476
Cobalt	13	mg/kg-dry		5		SW6020	12/17/15 19:24 / dck	12/15/15 10:34	ICPMS204-B_151217A	50	31476
Copper	596	mg/kg-dry		5		SW6010B	12/17/15 15:17 / sld	12/15/15 10:34	ICP2-HE_151217A	50	31476
Iron	27100	mg/kg-dry		10		SW6010B	12/17/15 15:17 / sld	12/15/15 10:34	ICP2-HE_151217A	50	31476
Lead	179	mg/kg-dry		5		SW6020	12/17/15 19:24 / dck	12/15/15 10:34	ICPMS204-B_151217A	50	31476
Manganese	2490	mg/kg-dry		5		SW6010B	12/17/15 15:17 / sld	12/15/15 10:34	ICP2-HE_151217A	50	31476
Molybdenum	8	mg/kg-dry		5		SW6020	12/17/15 19:24 / dck	12/15/15 10:34	ICPMS204-B_151217A	50	31476
Nickel	17	mg/kg-dry		5		SW6010B	12/17/15 15:17 / sld	12/15/15 10:34	ICP2-HE_151217A	50	31476
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 19:24 / dck	12/15/15 10:34	ICPMS204-B_151217A	50	31476
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 19:24 / dck	12/15/15 10:34	ICPMS204-B_151217A	50	31476
Uranium	6	mg/kg-dry		5		SW6020	12/17/15 19:24 / dck	12/15/15 10:34	ICPMS204-B_151217A	50	31476
Vanadium	39	mg/kg-dry		3		SW6010B	12/17/15 15:17 / sld	12/15/15 10:34	ICP2-HE_151217A	50	31476
Zinc	1670	mg/kg-dry		5		SW6010B	12/17/15 15:17 / sld	12/15/15 10:34	ICP2-HE_151217A	50	31476
METALS, TOTAL											
Mercury	0.85	mg/kg-dry		0.10		SW7471B	12/16/15 13:09 / rgk	12/16/15 07:58	HGCV201-H_151216A	20	31488

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: Sediment Duplicate #2 (SS-10B) Sediment Sieve 0.065-1mm
Collection Date: 12/04/15 11:00
DateReceived: 12/07/15
Lab ID: H15120093-035
Report Date: 12/29/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	22.0	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	23	R111708
PHYSICAL CHARACTERISTICS											
Moisture	61.2	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	26	R111840
3050 EXTRACTABLE METALS											
Aluminum	11600	mg/kg-dry		9		SW6010B	12/17/15 17:21 / sld	12/15/15 10:35	ICP2-HE_151217A	83	31477
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 20:43 / dck	12/15/15 10:35	ICPMS204-B_151217A	75	31477
Arsenic	29	mg/kg-dry		5		SW6020	12/17/15 20:43 / dck	12/15/15 10:35	ICPMS204-B_151217A	75	31477
Barium	246	mg/kg-dry		5		SW6020	12/17/15 20:43 / dck	12/15/15 10:35	ICPMS204-B_151217A	75	31477
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 17:21 / sld	12/15/15 10:35	ICP2-HE_151217A	83	31477
Boron	8	mg/kg-dry		6		SW6020	12/17/15 20:43 / dck	12/15/15 10:35	ICPMS204-B_151217A	75	31477
Cadmium	4.3	mg/kg-dry		0.5		SW6020	12/17/15 20:43 / dck	12/15/15 10:35	ICPMS204-B_151217A	75	31477
Chromium	15	mg/kg-dry		5		SW6020	12/17/15 20:43 / dck	12/15/15 10:35	ICPMS204-B_151217A	75	31477
Cobalt	7	mg/kg-dry		5		SW6020	12/17/15 20:43 / dck	12/15/15 10:35	ICPMS204-B_151217A	75	31477
Copper	262	mg/kg-dry		5		SW6010B	12/17/15 17:21 / sld	12/15/15 10:35	ICP2-HE_151217A	83	31477
Iron	22900	mg/kg-dry		8		SW6010B	12/17/15 17:21 / sld	12/15/15 10:35	ICP2-HE_151217A	83	31477
Lead	89	mg/kg-dry		5		SW6020	12/17/15 20:43 / dck	12/15/15 10:35	ICPMS204-B_151217A	75	31477
Manganese	1020	mg/kg-dry		5		SW6010B	12/17/15 17:21 / sld	12/15/15 10:35	ICP2-HE_151217A	83	31477
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 20:43 / dck	12/15/15 10:35	ICPMS204-B_151217A	75	31477
Nickel	7	mg/kg-dry		5		SW6010B	12/17/15 17:21 / sld	12/15/15 10:35	ICP2-HE_151217A	83	31477
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 20:43 / dck	12/15/15 10:35	ICPMS204-B_151217A	75	31477
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 20:43 / dck	12/15/15 10:35	ICPMS204-B_151217A	75	31477
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 20:43 / dck	12/15/15 10:35	ICPMS204-B_151217A	75	31477
Vanadium	49	mg/kg-dry		1		SW6020	12/17/15 20:43 / dck	12/15/15 10:35	ICPMS204-B_151217A	75	31477
Zinc	695	mg/kg-dry		5		SW6010B	12/17/15 17:21 / sld	12/15/15 10:35	ICP2-HE_151217A	83	31477
METALS, TOTAL											
Mercury	0.32	mg/kg-dry		0.10		SW7471B	12/16/15 13:15 / rgk	12/16/15 07:58	HGCV201-H_151216A	23	31488

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: Sediment Duplicate #2 (SS-10B) Sediment Sieve 1-2mm
Collection Date: 12/04/15 11:00
DateReceived: 12/07/15
Lab ID: H15120093-036
Report Date: 12/29/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	4.6	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	24	R111708
PHYSICAL CHARACTERISTICS											
Moisture	22.1	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	27	R111840
3050 EXTRACTABLE METALS											
Aluminum	5760	mg/kg-dry		5		SW6010B	12/17/15 18:43 / sld	12/15/15 10:36	ICP2-HE_151217A	105	31478
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 22:02 / dck	12/15/15 10:36	ICPMS204-B_151217A	100	31478
Arsenic	ND	mg/kg-dry		5		SW6020	12/17/15 22:02 / dck	12/15/15 10:36	ICPMS204-B_151217A	100	31478
Barium	82	mg/kg-dry		5		SW6010B	12/17/15 18:43 / sld	12/15/15 10:36	ICP2-HE_151217A	105	31478
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 18:43 / sld	12/15/15 10:36	ICP2-HE_151217A	105	31478
Boron	ND	mg/kg-dry		5		SW6020	12/18/15 15:33 / dck	12/15/15 10:36	ICPMS204-B_151218A	24	31478
Cadmium	0.6	mg/kg-dry		0.2		SW6020	12/17/15 22:02 / dck	12/15/15 10:36	ICPMS204-B_151217A	100	31478
Chromium	ND	mg/kg-dry		5		SW6020	12/17/15 22:02 / dck	12/15/15 10:36	ICPMS204-B_151217A	100	31478
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 22:02 / dck	12/15/15 10:36	ICPMS204-B_151217A	100	31478
Copper	27	mg/kg-dry		5		SW6010B	12/17/15 18:43 / sld	12/15/15 10:36	ICP2-HE_151217A	105	31478
Iron	6880	mg/kg-dry		5		SW6010B	12/17/15 18:43 / sld	12/15/15 10:36	ICP2-HE_151217A	105	31478
Lead	9	mg/kg-dry		5		SW6020	12/17/15 22:02 / dck	12/15/15 10:36	ICPMS204-B_151217A	100	31478
Manganese	420	mg/kg-dry		5		SW6010B	12/17/15 18:43 / sld	12/15/15 10:36	ICP2-HE_151217A	105	31478
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 22:02 / dck	12/15/15 10:36	ICPMS204-B_151217A	100	31478
Nickel	ND	mg/kg-dry		5		SW6010B	12/17/15 18:43 / sld	12/15/15 10:36	ICP2-HE_151217A	105	31478
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 22:02 / dck	12/15/15 10:36	ICPMS204-B_151217A	100	31478
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 22:02 / dck	12/15/15 10:36	ICPMS204-B_151217A	100	31478
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 22:02 / dck	12/15/15 10:36	ICPMS204-B_151217A	100	31478
Vanadium	10	mg/kg-dry		1		SW6020	12/17/15 22:02 / dck	12/15/15 10:36	ICPMS204-B_151217A	100	31478
Zinc	114	mg/kg-dry	D	20		SW6020	12/17/15 22:02 / dck	12/15/15 10:36	ICPMS204-B_151217A	100	31478
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	12/16/15 13:23 / rgk	12/16/15 07:58	HGCV201-H_151216A	27	31488

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C Sediment Sieve <0.065mm
Lab ID: H15120093-037
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 10:15
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	3.7	wt% Passed		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	25	R111708
PHYSICAL CHARACTERISTICS											
Moisture	68.1	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	28	R111840
3050 EXTRACTABLE METALS											
Aluminum	23000	mg/kg-dry		10		SW6010B	12/17/15 15:21 / sld	12/15/15 10:34	ICP2-HE_151217A	51	31476
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 19:27 / dck	12/15/15 10:34	ICPMS204-B_151217A	51	31476
Arsenic	33	mg/kg-dry		5		SW6020	12/17/15 19:27 / dck	12/15/15 10:34	ICPMS204-B_151217A	51	31476
Barium	459	mg/kg-dry		5		SW6010B	12/17/15 15:21 / sld	12/15/15 10:34	ICP2-HE_151217A	51	31476
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 15:21 / sld	12/15/15 10:34	ICP2-HE_151217A	51	31476
Boron	13	mg/kg-dry		7		SW6020	12/17/15 19:27 / dck	12/15/15 10:34	ICPMS204-B_151217A	51	31476
Cadmium	13.6	mg/kg-dry		0.5		SW6020	12/17/15 19:27 / dck	12/15/15 10:34	ICPMS204-B_151217A	51	31476
Chromium	29	mg/kg-dry		5		SW6020	12/17/15 19:27 / dck	12/15/15 10:34	ICPMS204-B_151217A	51	31476
Cobalt	15	mg/kg-dry		5		SW6020	12/17/15 19:27 / dck	12/15/15 10:34	ICPMS204-B_151217A	51	31476
Copper	682	mg/kg-dry		5		SW6010B	12/17/15 15:21 / sld	12/15/15 10:34	ICP2-HE_151217A	51	31476
Iron	27200	mg/kg-dry		10		SW6010B	12/17/15 15:21 / sld	12/15/15 10:34	ICP2-HE_151217A	51	31476
Lead	186	mg/kg-dry		5		SW6020	12/17/15 19:27 / dck	12/15/15 10:34	ICPMS204-B_151217A	51	31476
Manganese	8900	mg/kg-dry		5		SW6010B	12/17/15 15:21 / sld	12/15/15 10:34	ICP2-HE_151217A	51	31476
Molybdenum	7	mg/kg-dry		5		SW6020	12/17/15 19:27 / dck	12/15/15 10:34	ICPMS204-B_151217A	51	31476
Nickel	20	mg/kg-dry		5		SW6010B	12/17/15 15:21 / sld	12/15/15 10:34	ICP2-HE_151217A	51	31476
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 19:27 / dck	12/15/15 10:34	ICPMS204-B_151217A	51	31476
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 19:27 / dck	12/15/15 10:34	ICPMS204-B_151217A	51	31476
Uranium	6	mg/kg-dry		5		SW6020	12/17/15 19:27 / dck	12/15/15 10:34	ICPMS204-B_151217A	51	31476
Vanadium	56	mg/kg-dry		2		SW6010B	12/17/15 15:21 / sld	12/15/15 10:34	ICP2-HE_151217A	51	31476
Zinc	2080	mg/kg-dry		5		SW6010B	12/17/15 15:21 / sld	12/15/15 10:34	ICP2-HE_151217A	51	31476
METALS, TOTAL											
Mercury	0.65	mg/kg-dry		0.10		SW7471B	12/15/15 11:19 / AH	12/14/15 11:22	HGCV201-H_151215A	23	31460

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C Sediment Sieve 0.065-1mm
Lab ID: H15120093-038
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 10:15
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	20.7	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	26	R111708
PHYSICAL CHARACTERISTICS											
Moisture	29.3	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	29	R111840
3050 EXTRACTABLE METALS											
Aluminum	6550	mg/kg-dry		5		SW6010B	12/17/15 17:25 / sld	12/15/15 10:35	ICP2-HE_151217A	84	31477
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 20:46 / dck	12/15/15 10:35	ICPMS204-B_151217A	76	31477
Arsenic	ND	mg/kg-dry		5		SW6020	12/17/15 20:46 / dck	12/15/15 10:35	ICPMS204-B_151217A	76	31477
Barium	18	mg/kg-dry		5		SW6020	12/17/15 20:46 / dck	12/15/15 10:35	ICPMS204-B_151217A	76	31477
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 17:25 / sld	12/15/15 10:35	ICP2-HE_151217A	84	31477
Boron	ND	mg/kg-dry		5		SW6020	12/17/15 20:46 / dck	12/15/15 10:35	ICPMS204-B_151217A	76	31477
Cadmium	0.2	mg/kg-dry		0.2		SW6020	12/17/15 20:46 / dck	12/15/15 10:35	ICPMS204-B_151217A	76	31477
Chromium	ND	mg/kg-dry		5		SW6020	12/17/15 20:46 / dck	12/15/15 10:35	ICPMS204-B_151217A	76	31477
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 20:46 / dck	12/15/15 10:35	ICPMS204-B_151217A	76	31477
Copper	96	mg/kg-dry		5		SW6010B	12/17/15 17:25 / sld	12/15/15 10:35	ICP2-HE_151217A	84	31477
Iron	17900	mg/kg-dry		5		SW6010B	12/17/15 17:25 / sld	12/15/15 10:35	ICP2-HE_151217A	84	31477
Lead	ND	mg/kg-dry		5		SW6020	12/17/15 20:46 / dck	12/15/15 10:35	ICPMS204-B_151217A	76	31477
Manganese	1210	mg/kg-dry		5		SW6010B	12/17/15 17:25 / sld	12/15/15 10:35	ICP2-HE_151217A	84	31477
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 20:46 / dck	12/15/15 10:35	ICPMS204-B_151217A	76	31477
Nickel	ND	mg/kg-dry		5		SW6010B	12/17/15 17:25 / sld	12/15/15 10:35	ICP2-HE_151217A	84	31477
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 20:46 / dck	12/15/15 10:35	ICPMS204-B_151217A	76	31477
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 20:46 / dck	12/15/15 10:35	ICPMS204-B_151217A	76	31477
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 20:46 / dck	12/15/15 10:35	ICPMS204-B_151217A	76	31477
Vanadium	5	mg/kg-dry		1		SW6020	12/17/15 20:46 / dck	12/15/15 10:35	ICPMS204-B_151217A	76	31477
Zinc	335	mg/kg-dry		5		SW6010B	12/17/15 17:25 / sld	12/15/15 10:35	ICP2-HE_151217A	84	31477
METALS, TOTAL											
Mercury	0.11	mg/kg-dry		0.10		SW7471B	12/15/15 11:21 / AH	12/14/15 11:22	HGCV201-H_151215A	24	31460

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11C Sediment Sieve 1-2mm
Lab ID: H15120093-039
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 10:15
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	13.4	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	27	R111708
PHYSICAL CHARACTERISTICS											
Moisture	14.7	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	30	R111840
3050 EXTRACTABLE METALS											
Aluminum	4060	mg/kg-dry		5		SW6010B	12/17/15 18:47 / sld	12/15/15 10:36	ICP2-HE_151217A	106	31478
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 22:05 / dck	12/15/15 10:36	ICPMS204-B_151217A	101	31478
Arsenic	7	mg/kg-dry		5		SW6020	12/17/15 22:05 / dck	12/15/15 10:36	ICPMS204-B_151217A	101	31478
Barium	91	mg/kg-dry		5		SW6010B	12/17/15 18:47 / sld	12/15/15 10:36	ICP2-HE_151217A	106	31478
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 18:47 / sld	12/15/15 10:36	ICP2-HE_151217A	106	31478
Boron	ND	mg/kg-dry		5		SW6020	12/18/15 15:36 / dck	12/15/15 10:36	ICPMS204-B_151218A	25	31478
Cadmium	0.3	mg/kg-dry		0.2		SW6020	12/17/15 22:05 / dck	12/15/15 10:36	ICPMS204-B_151217A	101	31478
Chromium	6	mg/kg-dry		5		SW6020	12/17/15 22:05 / dck	12/15/15 10:36	ICPMS204-B_151217A	101	31478
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 22:05 / dck	12/15/15 10:36	ICPMS204-B_151217A	101	31478
Copper	18	mg/kg-dry		5		SW6010B	12/17/15 18:47 / sld	12/15/15 10:36	ICP2-HE_151217A	106	31478
Iron	5710	mg/kg-dry		5		SW6010B	12/17/15 18:47 / sld	12/15/15 10:36	ICP2-HE_151217A	106	31478
Lead	7	mg/kg-dry		5		SW6020	12/17/15 22:05 / dck	12/15/15 10:36	ICPMS204-B_151217A	101	31478
Manganese	814	mg/kg-dry		5		SW6010B	12/17/15 18:47 / sld	12/15/15 10:36	ICP2-HE_151217A	106	31478
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 22:05 / dck	12/15/15 10:36	ICPMS204-B_151217A	101	31478
Nickel	ND	mg/kg-dry		5		SW6010B	12/17/15 18:47 / sld	12/15/15 10:36	ICP2-HE_151217A	106	31478
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 22:05 / dck	12/15/15 10:36	ICPMS204-B_151217A	101	31478
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 22:05 / dck	12/15/15 10:36	ICPMS204-B_151217A	101	31478
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 22:05 / dck	12/15/15 10:36	ICPMS204-B_151217A	101	31478
Vanadium	11	mg/kg-dry		1		SW6020	12/17/15 22:05 / dck	12/15/15 10:36	ICPMS204-B_151217A	101	31478
Zinc	88	mg/kg-dry	D	10		SW6020	12/17/15 22:05 / dck	12/15/15 10:36	ICPMS204-B_151217A	101	31478
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	12/15/15 12:03 / AH	12/14/15 11:27	HGCV201-H_151215A	30	31460

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D Sediment Sieve <0.065mm
Lab ID: H15120093-040
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 09:15
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	4.2	wt% Passed		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	28	R111708
PHYSICAL CHARACTERISTICS											
Moisture	64.7	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	32	R111840
3050 EXTRACTABLE METALS											
Aluminum	23100	mg/kg-dry		9		SW6010B	12/17/15 15:25 / sld	12/15/15 10:34	ICP2-HE_151217A	52	31476
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 19:30 / dck	12/15/15 10:34	ICPMS204-B_151217A	52	31476
Arsenic	29	mg/kg-dry		5		SW6020	12/17/15 19:30 / dck	12/15/15 10:34	ICPMS204-B_151217A	52	31476
Barium	416	mg/kg-dry		5		SW6010B	12/17/15 15:25 / sld	12/15/15 10:34	ICP2-HE_151217A	52	31476
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 15:25 / sld	12/15/15 10:34	ICP2-HE_151217A	52	31476
Boron	10	mg/kg-dry		6		SW6020	12/17/15 19:30 / dck	12/15/15 10:34	ICPMS204-B_151217A	52	31476
Cadmium	10.7	mg/kg-dry		0.5		SW6020	12/17/15 19:30 / dck	12/15/15 10:34	ICPMS204-B_151217A	52	31476
Chromium	30	mg/kg-dry		5		SW6020	12/17/15 19:30 / dck	12/15/15 10:34	ICPMS204-B_151217A	52	31476
Cobalt	11	mg/kg-dry		5		SW6020	12/17/15 19:30 / dck	12/15/15 10:34	ICPMS204-B_151217A	52	31476
Copper	543	mg/kg-dry		5		SW6010B	12/17/15 15:25 / sld	12/15/15 10:34	ICP2-HE_151217A	52	31476
Iron	26000	mg/kg-dry		8		SW6010B	12/17/15 15:25 / sld	12/15/15 10:34	ICP2-HE_151217A	52	31476
Lead	135	mg/kg-dry		5		SW6020	12/17/15 19:30 / dck	12/15/15 10:34	ICPMS204-B_151217A	52	31476
Manganese	4710	mg/kg-dry		5		SW6010B	12/17/15 15:25 / sld	12/15/15 10:34	ICP2-HE_151217A	52	31476
Molybdenum	5	mg/kg-dry		5		SW6020	12/17/15 19:30 / dck	12/15/15 10:34	ICPMS204-B_151217A	52	31476
Nickel	18	mg/kg-dry		5		SW6010B	12/17/15 15:25 / sld	12/15/15 10:34	ICP2-HE_151217A	52	31476
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 19:30 / dck	12/15/15 10:34	ICPMS204-B_151217A	52	31476
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 19:30 / dck	12/15/15 10:34	ICPMS204-B_151217A	52	31476
Uranium	7	mg/kg-dry		5		SW6020	12/17/15 19:30 / dck	12/15/15 10:34	ICPMS204-B_151217A	52	31476
Vanadium	58	mg/kg-dry		2		SW6010B	12/17/15 15:25 / sld	12/15/15 10:34	ICP2-HE_151217A	52	31476
Zinc	1360	mg/kg-dry		5		SW6010B	12/17/15 15:25 / sld	12/15/15 10:34	ICP2-HE_151217A	52	31476
METALS, TOTAL											
Mercury	0.75	mg/kg-dry		0.10		SW7471B	12/16/15 13:25 / rgk	12/16/15 07:58	HGCV201-H_151216A	28	31488

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Project: Silver Bow Creek Monitoring
Client Sample ID: SS-11D Sediment Sieve 0.065-1mm
Collection Date: 12/04/15 09:15
DateReceived: 12/07/15
Lab ID: H15120093-041
Report Date: 12/29/15
Matrix: Sediment

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	18.7	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	29	R111708
PHYSICAL CHARACTERISTICS											
Moisture	29.2	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	33	R111840
3050 EXTRACTABLE METALS											
Aluminum	7550	mg/kg-dry		5		SW6010B	12/17/15 17:29 / sld	12/15/15 10:35	ICP2-HE_151217A	85	31477
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 20:49 / dck	12/15/15 10:35	ICPMS204-B_151217A	77	31477
Arsenic	5	mg/kg-dry		5		SW6020	12/17/15 20:49 / dck	12/15/15 10:35	ICPMS204-B_151217A	77	31477
Barium	185	mg/kg-dry		5		SW6020	12/17/15 20:49 / dck	12/15/15 10:35	ICPMS204-B_151217A	77	31477
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 17:29 / sld	12/15/15 10:35	ICP2-HE_151217A	85	31477
Boron	ND	mg/kg-dry		5		SW6020	12/17/15 20:49 / dck	12/15/15 10:35	ICPMS204-B_151217A	77	31477
Cadmium	1.6	mg/kg-dry		0.2		SW6020	12/17/15 20:49 / dck	12/15/15 10:35	ICPMS204-B_151217A	77	31477
Chromium	12	mg/kg-dry		5		SW6020	12/17/15 20:49 / dck	12/15/15 10:35	ICPMS204-B_151217A	77	31477
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 20:49 / dck	12/15/15 10:35	ICPMS204-B_151217A	77	31477
Copper	60	mg/kg-dry		5		SW6010B	12/17/15 17:29 / sld	12/15/15 10:35	ICP2-HE_151217A	85	31477
Iron	10500	mg/kg-dry		5		SW6010B	12/17/15 17:29 / sld	12/15/15 10:35	ICP2-HE_151217A	85	31477
Lead	18	mg/kg-dry		5		SW6020	12/17/15 20:49 / dck	12/15/15 10:35	ICPMS204-B_151217A	77	31477
Manganese	912	mg/kg-dry		5		SW6010B	12/17/15 17:29 / sld	12/15/15 10:35	ICP2-HE_151217A	85	31477
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 20:49 / dck	12/15/15 10:35	ICPMS204-B_151217A	77	31477
Nickel	6	mg/kg-dry		5		SW6010B	12/17/15 17:29 / sld	12/15/15 10:35	ICP2-HE_151217A	85	31477
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 20:49 / dck	12/15/15 10:35	ICPMS204-B_151217A	77	31477
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 20:49 / dck	12/15/15 10:35	ICPMS204-B_151217A	77	31477
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 20:49 / dck	12/15/15 10:35	ICPMS204-B_151217A	77	31477
Vanadium	22	mg/kg-dry		1		SW6020	12/17/15 20:49 / dck	12/15/15 10:35	ICPMS204-B_151217A	77	31477
Zinc	226	mg/kg-dry		5		SW6010B	12/17/15 17:29 / sld	12/15/15 10:35	ICP2-HE_151217A	85	31477
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	12/16/15 13:27 / rgk	12/16/15 07:58	HGCV201-H_151216A	29	31488

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-11D Sediment Sieve 1-2mm
Lab ID: H15120093-042
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/04/15 09:15
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	11.5	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	: 30	R111708
PHYSICAL CHARACTERISTICS											
Moisture	13.8	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	: 34	R111840
3050 EXTRACTABLE METALS											
Aluminum	6120	mg/kg-dry		5		SW6010B	12/17/15 18:51 / sld	12/15/15 10:36	ICP2-HE_151217A	: 107	31478
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 22:09 / dck	12/15/15 10:36	ICPMS204-B_151217A	: 102	31478
Arsenic	5	mg/kg-dry		5		SW6020	12/17/15 22:09 / dck	12/15/15 10:36	ICPMS204-B_151217A	: 102	31478
Barium	160	mg/kg-dry		5		SW6010B	12/17/15 18:51 / sld	12/15/15 10:36	ICP2-HE_151217A	: 107	31478
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 18:51 / sld	12/15/15 10:36	ICP2-HE_151217A	: 107	31478
Boron	ND	mg/kg-dry		5		SW6020	12/18/15 15:39 / dck	12/15/15 10:36	ICPMS204-B_151218A	: 26	31478
Cadmium	0.4	mg/kg-dry		0.2		SW6020	12/17/15 22:09 / dck	12/15/15 10:36	ICPMS204-B_151217A	: 102	31478
Chromium	13	mg/kg-dry		5		SW6020	12/17/15 22:09 / dck	12/15/15 10:36	ICPMS204-B_151217A	: 102	31478
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 22:09 / dck	12/15/15 10:36	ICPMS204-B_151217A	: 102	31478
Copper	22	mg/kg-dry		5		SW6010B	12/17/15 18:51 / sld	12/15/15 10:36	ICP2-HE_151217A	: 107	31478
Iron	8420	mg/kg-dry		5		SW6010B	12/17/15 18:51 / sld	12/15/15 10:36	ICP2-HE_151217A	: 107	31478
Lead	15	mg/kg-dry		5		SW6020	12/17/15 22:09 / dck	12/15/15 10:36	ICPMS204-B_151217A	: 102	31478
Manganese	1650	mg/kg-dry		5		SW6010B	12/17/15 18:51 / sld	12/15/15 10:36	ICP2-HE_151217A	: 107	31478
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 22:09 / dck	12/15/15 10:36	ICPMS204-B_151217A	: 102	31478
Nickel	8	mg/kg-dry		5		SW6010B	12/17/15 18:51 / sld	12/15/15 10:36	ICP2-HE_151217A	: 107	31478
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 22:09 / dck	12/15/15 10:36	ICPMS204-B_151217A	: 102	31478
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 22:09 / dck	12/15/15 10:36	ICPMS204-B_151217A	: 102	31478
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 22:09 / dck	12/15/15 10:36	ICPMS204-B_151217A	: 102	31478
Vanadium	15	mg/kg-dry		1		SW6020	12/17/15 22:09 / dck	12/15/15 10:36	ICPMS204-B_151217A	: 102	31478
Zinc	121	mg/kg-dry	D	10		SW6020	12/17/15 22:09 / dck	12/15/15 10:36	ICPMS204-B_151217A	: 102	31478
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	12/16/15 13:29 / rgk	12/16/15 07:58	HGCV201-H_151216A	: 30	31488

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D Sediment Sieve <0.065mm
Lab ID: H15120093-043
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 10:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	2.9	wt% Passed		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	31	R111708
PHYSICAL CHARACTERISTICS											
Moisture	59.7	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	35	R111840
3050 EXTRACTABLE METALS											
Aluminum	24400	mg/kg-dry		8		SW6010B	12/17/15 15:28 / sld	12/15/15 10:34	ICP2-HE_151217A	53	31476
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 19:33 / dck	12/15/15 10:34	ICPMS204-B_151217A	53	31476
Arsenic	44	mg/kg-dry		5		SW6020	12/17/15 19:33 / dck	12/15/15 10:34	ICPMS204-B_151217A	53	31476
Barium	320	mg/kg-dry		5		SW6010B	12/17/15 15:28 / sld	12/15/15 10:34	ICP2-HE_151217A	53	31476
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 15:28 / sld	12/15/15 10:34	ICP2-HE_151217A	53	31476
Boron	8	mg/kg-dry		5		SW6020	12/17/15 19:33 / dck	12/15/15 10:34	ICPMS204-B_151217A	53	31476
Cadmium	14.1	mg/kg-dry		0.4		SW6020	12/17/15 19:33 / dck	12/15/15 10:34	ICPMS204-B_151217A	53	31476
Chromium	39	mg/kg-dry		5		SW6020	12/17/15 19:33 / dck	12/15/15 10:34	ICPMS204-B_151217A	53	31476
Cobalt	12	mg/kg-dry		5		SW6020	12/17/15 19:33 / dck	12/15/15 10:34	ICPMS204-B_151217A	53	31476
Copper	629	mg/kg-dry		5		SW6010B	12/17/15 15:28 / sld	12/15/15 10:34	ICP2-HE_151217A	53	31476
Iron	31100	mg/kg-dry		7		SW6010B	12/17/15 15:28 / sld	12/15/15 10:34	ICP2-HE_151217A	53	31476
Lead	175	mg/kg-dry		5		SW6020	12/17/15 19:33 / dck	12/15/15 10:34	ICPMS204-B_151217A	53	31476
Manganese	3680	mg/kg-dry		5		SW6010B	12/17/15 15:28 / sld	12/15/15 10:34	ICP2-HE_151217A	53	31476
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 19:33 / dck	12/15/15 10:34	ICPMS204-B_151217A	53	31476
Nickel	22	mg/kg-dry		5		SW6010B	12/17/15 15:28 / sld	12/15/15 10:34	ICP2-HE_151217A	53	31476
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 19:33 / dck	12/15/15 10:34	ICPMS204-B_151217A	53	31476
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 19:33 / dck	12/15/15 10:34	ICPMS204-B_151217A	53	31476
Uranium	8	mg/kg-dry		5		SW6020	12/17/15 19:33 / dck	12/15/15 10:34	ICPMS204-B_151217A	53	31476
Vanadium	69	mg/kg-dry		2		SW6010B	12/17/15 15:28 / sld	12/15/15 10:34	ICP2-HE_151217A	53	31476
Zinc	1690	mg/kg-dry		5		SW6010B	12/17/15 15:28 / sld	12/15/15 10:34	ICP2-HE_151217A	53	31476
METALS, TOTAL											
Mercury	1.1	mg/kg-dry		0.10		SW7471B	12/16/15 13:31 / rgk	12/16/15 07:58	HGCV201-H_151216A	31	31488

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D Sediment Sieve 0.065-1mm
Lab ID: H15120093-044
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 10:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 230 Sieve	32.7	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	32	R111708
PHYSICAL CHARACTERISTICS											
Moisture	23.8	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	36	R111840
3050 EXTRACTABLE METALS											
Aluminum	6190	mg/kg-dry		5		SW6010B	12/17/15 17:40 / sld	12/15/15 10:35	ICP2-HE_151217A	88	31477
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 20:52 / dck	12/15/15 10:35	ICPMS204-B_151217A	78	31477
Arsenic	19	mg/kg-dry		5		SW6020	12/17/15 20:52 / dck	12/15/15 10:35	ICPMS204-B_151217A	78	31477
Barium	129	mg/kg-dry		5		SW6020	12/17/15 20:52 / dck	12/15/15 10:35	ICPMS204-B_151217A	78	31477
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 17:40 / sld	12/15/15 10:35	ICP2-HE_151217A	88	31477
Boron	ND	mg/kg-dry		5		SW6020	12/17/15 20:52 / dck	12/15/15 10:35	ICPMS204-B_151217A	78	31477
Cadmium	1.3	mg/kg-dry		0.2		SW6020	12/17/15 20:52 / dck	12/15/15 10:35	ICPMS204-B_151217A	78	31477
Chromium	13	mg/kg-dry		5		SW6020	12/17/15 20:52 / dck	12/15/15 10:35	ICPMS204-B_151217A	78	31477
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 20:52 / dck	12/15/15 10:35	ICPMS204-B_151217A	78	31477
Copper	105	mg/kg-dry		5		SW6010B	12/17/15 17:40 / sld	12/15/15 10:35	ICP2-HE_151217A	88	31477
Iron	16900	mg/kg-dry		5		SW6010B	12/17/15 17:40 / sld	12/15/15 10:35	ICP2-HE_151217A	88	31477
Lead	42	mg/kg-dry		5		SW6020	12/17/15 20:52 / dck	12/15/15 10:35	ICPMS204-B_151217A	78	31477
Manganese	854	mg/kg-dry		5		SW6010B	12/17/15 17:40 / sld	12/15/15 10:35	ICP2-HE_151217A	88	31477
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 20:52 / dck	12/15/15 10:35	ICPMS204-B_151217A	78	31477
Nickel	5	mg/kg-dry		5		SW6010B	12/17/15 17:40 / sld	12/15/15 10:35	ICP2-HE_151217A	88	31477
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 20:52 / dck	12/15/15 10:35	ICPMS204-B_151217A	78	31477
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 20:52 / dck	12/15/15 10:35	ICPMS204-B_151217A	78	31477
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 20:52 / dck	12/15/15 10:35	ICPMS204-B_151217A	78	31477
Vanadium	43	mg/kg-dry		1		SW6020	12/17/15 20:52 / dck	12/15/15 10:35	ICPMS204-B_151217A	78	31477
Zinc	368	mg/kg-dry		5		SW6010B	12/17/15 17:40 / sld	12/15/15 10:35	ICP2-HE_151217A	88	31477
METALS, TOTAL											
Mercury	0.14	mg/kg-dry		0.10		SW7471B	12/16/15 13:33 / rgk	12/16/15 07:58	HGCV201-H_151216A	32	31488

Report Definitions: RL - Analyte reporting limit. MCL - Maximum contaminant level. ND - Not detected at the reporting limit.

LABORATORY ANALYTICAL REPORT

Prepared by Helena, MT Branch

Client: MT DEQ-Federal Superfund
Client Sample ID: SS-17D Sediment Sieve 1-2mm
Lab ID: H15120093-045
Matrix: Sediment

Project: Silver Bow Creek Monitoring
Collection Date: 12/03/15 10:30
DateReceived: 12/07/15
Report Date: 12/29/15

Analyses	Result	Units	Qualifiers	RL	MDL	Method	Analysis Date / By	Prep Date	RunID	Run Order	BatchID
PHYSICAL CHARACTERISTICS											
No. 18 Sieve, Retained	9.5	wt% retained		0.1		ASA15-2	12/11/15 15:31 / edp		MISC SOILS_151211A	33	R111708
PHYSICAL CHARACTERISTICS											
Moisture	17.4	wt%		0.2		D2974	12/22/15 08:18 / AH		RYING OVEN 2_151221C	37	R111840
3050 EXTRACTABLE METALS											
Aluminum	3960	mg/kg-dry		5		SW6010B	12/17/15 18:54 / sld	12/15/15 10:36	ICP2-HE_151217A	108	31478
Antimony	ND	mg/kg-dry		5		SW6020	12/17/15 22:12 / dck	12/15/15 10:36	ICPMS204-B_151217A	103	31478
Arsenic	35	mg/kg-dry		5		SW6020	12/17/15 22:12 / dck	12/15/15 10:36	ICPMS204-B_151217A	103	31478
Barium	59	mg/kg-dry		5		SW6010B	12/17/15 18:54 / sld	12/15/15 10:36	ICP2-HE_151217A	108	31478
Beryllium	ND	mg/kg-dry		5		SW6010B	12/17/15 18:54 / sld	12/15/15 10:36	ICP2-HE_151217A	108	31478
Boron	ND	mg/kg-dry		5		SW6020	12/18/15 15:42 / dck	12/15/15 10:36	ICPMS204-B_151218A	27	31478
Cadmium	0.5	mg/kg-dry		0.2		SW6020	12/17/15 22:12 / dck	12/15/15 10:36	ICPMS204-B_151217A	103	31478
Chromium	6	mg/kg-dry		5		SW6020	12/17/15 22:12 / dck	12/15/15 10:36	ICPMS204-B_151217A	103	31478
Cobalt	ND	mg/kg-dry		5		SW6020	12/17/15 22:12 / dck	12/15/15 10:36	ICPMS204-B_151217A	103	31478
Copper	129	mg/kg-dry		5		SW6010B	12/17/15 18:54 / sld	12/15/15 10:36	ICP2-HE_151217A	108	31478
Iron	9350	mg/kg-dry		5		SW6010B	12/17/15 18:54 / sld	12/15/15 10:36	ICP2-HE_151217A	108	31478
Lead	38	mg/kg-dry		5		SW6020	12/17/15 22:12 / dck	12/15/15 10:36	ICPMS204-B_151217A	103	31478
Manganese	506	mg/kg-dry		5		SW6010B	12/17/15 18:54 / sld	12/15/15 10:36	ICP2-HE_151217A	108	31478
Molybdenum	ND	mg/kg-dry		5		SW6020	12/17/15 22:12 / dck	12/15/15 10:36	ICPMS204-B_151217A	103	31478
Nickel	ND	mg/kg-dry		5		SW6010B	12/17/15 18:54 / sld	12/15/15 10:36	ICP2-HE_151217A	108	31478
Selenium	ND	mg/kg-dry		5		SW6020	12/17/15 22:12 / dck	12/15/15 10:36	ICPMS204-B_151217A	103	31478
Silver	ND	mg/kg-dry		5		SW6020	12/17/15 22:12 / dck	12/15/15 10:36	ICPMS204-B_151217A	103	31478
Uranium	ND	mg/kg-dry		5		SW6020	12/17/15 22:12 / dck	12/15/15 10:36	ICPMS204-B_151217A	103	31478
Vanadium	16	mg/kg-dry		1		SW6020	12/17/15 22:12 / dck	12/15/15 10:36	ICPMS204-B_151217A	103	31478
Zinc	177	mg/kg-dry	D	10		SW6020	12/17/15 22:12 / dck	12/15/15 10:36	ICPMS204-B_151217A	103	31478
METALS, TOTAL											
Mercury	ND	mg/kg-dry		0.10		SW7471B	12/16/15 13:35 / rgk	12/16/15 07:58	HGCV201-H_151216A	33	31488

Report Definitions:
RL - Analyte reporting limit.
D - RL increased due to sample matrix.
MCL - Maximum contaminant level.
ND - Not detected at the reporting limit.

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 151208A-SLDS-VSS-W

Date: *29-Dec-15*

Run ID :Run Order: **MISC WC_151208A: 1** SampType: **Method Blank** Lab ID: **MBLK1_151208A** Method: **A2540 E**

Analysis Date: **12/08/15 09:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	ND	1									

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **MISC WC_151208A: 4** SampType: **Sample Duplicate** Lab ID: **H15120092-002ADUP** Method: **A2540 E**

Analysis Date: **12/08/15 09:27** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Volatile Suspended	7	10		0				7		30	

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 151211sa-hgcv201

Date: *29-Dec-15*

Run ID :Run Order: **HGCV201-H_151211A: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **12/11/15 14:15** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.00099	0.50	0.001	0	99	90	110				

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A**

Run ID :Run Order: **HGCV201-H_151211A: 22** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **12/11/15 15:01** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0024	0.50	0.0025	0	96	90	110				

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A**

Run ID :Run Order: **HGCV201-H_151211A: 33** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **12/11/15 15:23** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0024	0.50	0.0025	0	97	90	110				

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 151215SA-201

Date: *29-Dec-15*

Run ID :Run Order: **HGCV201-H_151215A: 1** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **12/15/15 09:44** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0010	0.50	0.001	0	102	90	110				

Associated samples: **H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-037A, H15120093-038A, H15120093-039A**

Run ID :Run Order: **HGCV201-H_151215A: 2** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **12/15/15 09:46** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0024	0.50	0.0025	0	96	90	110				

Associated samples: **H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-037A, H15120093-038A, H15120093-039A**

Run ID :Run Order: **HGCV201-H_151215A: 17** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **12/15/15 11:07** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0024	0.50	0.0025	0	96	90	110				

Associated samples: **H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-037A, H15120093-038A, H15120093-039A**

Run ID :Run Order: **HGCV201-H_151215A: 41** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **12/15/15 13:10** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0024	0.50	0.0025	0	96	90	110				

Associated samples: **H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-037A, H15120093-038A, H15120093-039A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 151216SA-HGCV201

Date: *29-Dec-15*

Run ID :Run Order: **HGCV201-H_151216A: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **SW7471B**

Analysis Date: **12/16/15 12:19** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0011	0.50	0.001	0	107	90	110				

Associated samples: **H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Run ID :Run Order: **HGCV201-H_151216A: 8** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **12/16/15 12:21** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	99	90	110				

Associated samples: **H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Run ID :Run Order: **HGCV201-H_151216A: 21** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **SW7471B**

Analysis Date: **12/16/15 13:11** Units: **mg/kg** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.0025	0.50	0.0025	0	99	90	110				

Associated samples: **H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31414

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151210A: 45** SampType: **Method Blank** Lab ID: **MB-31414** Method: **E200.7**

Analysis Date: **12/10/15 14:50** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.002									
Calcium	ND	0.06									
Iron	ND	0.009									
Magnesium	ND	0.01									
Potassium	ND	0.07									
Sodium	ND	0.01									

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Run ID :Run Order: **ICP2-HE_151210A: 46** SampType: **Laboratory Control Sample** Lab ID: **LCS-31414** Method: **E200.7**

Analysis Date: **12/10/15 14:54** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.540	0.050	0.5	0	**108**	85	115				
Calcium	26.7	1.0	25	0	**107**	85	115				
Iron	2.62	0.020	2.5	0	**105**	85	115				
Magnesium	26.5	1.0	25	0	**106**	85	115				
Potassium	26.6	1.0	25	0	**106**	85	115				
Sodium	26.7	1.0	25	0	**107**	85	115				

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Run ID :Run Order: **ICP2-HE_151210A: 48** SampType: **Serial Dilution** Lab ID: **H15120092-001CDIL** Method: **E200.7**

Analysis Date: **12/10/15 15:01** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method:

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.0305	0.050		0		0	0	0.03164		10	N
Calcium	33.3	1.0		0		0	0	33.1	**0.5**	10	
Iron	0.675	0.093		0		0	0	0.6314		10	N
Magnesium	8.96	1.0		0		0	0	8.838	**1.3**	10	
Potassium	3.00	1.0		0		0	0	3.039		10	N
Sodium	13.1	1.0		0		0	0	12.86	**1.5**	10	

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31414

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151210A: 49** SampType: **Sample Matrix Spike** Lab ID: **H15120092-001CMS3** Method: **E200.7**

Analysis Date: **12/10/15 15:05** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.08	0.050	1	0.03164	105	70	130				
Calcium	84.3	1.0	50	33.1	102	70	130				
Iron	5.79	0.020	5	0.6314	103	70	130				
Magnesium	60.8	1.0	50	8.838	104	70	130				
Potassium	57.3	1.0	50	3.039	109	70	130				
Sodium	67.7	1.0	50	12.86	110	70	130				

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Run ID :Run Order: **ICP2-HE_151210A: 50** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120092-001CMSD3** Method: **E200.7**

Analysis Date: **12/10/15 15:09** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.08	0.050	1	0.03164	105	70	130	1.082	0.0	20	
Calcium	83.7	1.0	50	33.1	101	70	130	84.35	0.8	20	
Iron	5.77	0.020	5	0.6314	103	70	130	5.786	0.3	20	
Magnesium	60.9	1.0	50	8.838	104	70	130	60.76	0.2	20	
Potassium	57.2	1.0	50	3.039	108	70	130	57.32	0.2	20	
Sodium	67.4	1.0	50	12.86	109	70	130	67.68	0.4	20	

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Run ID :Run Order: **ICP2-HE_151210A: 63** SampType: **Serial Dilution** Lab ID: **H15120093-008CDIL** Method: **E200.7**

Analysis Date: **12/10/15 15:58** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method:

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.0756	0.050		0		0	0	0.07456		10	N
Calcium	64.3	1.0		0		0	0	64.96	1.0	10	
Iron	0.550	0.046		0		0	0	0.5417	1.5	10	
Magnesium	14.0	1.0		0		0	0	14.19	1.4	10	
Potassium	6.29	1.0		0		0	0	6.752	7.1	10	
Sodium	33.8	1.0		0		0	0	36.27	7.2	10	

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31414

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151210A: 64** SampType: **Sample Matrix Spike** Lab ID: **H15120093-008CMS3** Method: **E200.7**

Analysis Date: **12/10/15 16:01** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.596	0.050	0.5	0.07456	104	70	130				
Calcium	90.9	1.0	25	64.96	104	70	130				
Iron	3.17	0.020	2.5	0.5417	105	70	130				
Magnesium	40.7	1.0	25	14.19	106	70	130				
Potassium	33.7	1.0	25	6.752	108	70	130				
Sodium	62.7	1.0	25	36.27	106	70	130				

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Run ID :Run Order: **ICP2-HE_151210A: 65** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-008CMSD3** Method: **E200.7**

Analysis Date: **12/10/15 16:05** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.597	0.050	0.5	0.07456	104	70	130	0.5958	0.1	20	
Calcium	89.4	1.0	25	64.96	98	70	130	90.87	1.7	20	
Iron	3.12	0.020	2.5	0.5417	103	70	130	3.168	1.7	20	
Magnesium	39.8	1.0	25	14.19	102	70	130	40.7	2.3	20	
Potassium	33.2	1.0	25	6.752	106	70	130	33.7	1.6	20	
Sodium	61.8	1.0	25	36.27	102	70	130	62.68	1.4	20	

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31414

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 46** SampType: **Method Blank** Lab ID: **MB-31414** Method: **E200.8**

Analysis Date: **12/10/15 16:00** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.002	0.002									
Antimony	0.0003	6E-05									
Arsenic	0.0005	6E-05									
Barium	0.0003	0.0001									
Beryllium	ND	0.0003									
Boron	0.003	0.002									
Cadmium	0.0001	1E-05									
Calcium	0.1	0.008									
Chromium	0.0002	0.0001									
Cobalt	0.0001	3E-05									
Copper	0.0002	0.0002									
Iron	0.007	0.002									
Lead	0.0001	3E-05									
Magnesium	0.02	0.006									
Manganese	0.0004	0.0002									
Molybdenum	0.0002	4E-05									
Nickel	ND	3E-05									
Potassium	0.05	0.02									
Selenium	ND	0.0004									
Silver	0.0005	5E-05									
Sodium	0.2	0.004									
Uranium	0.0002	5E-05									
Vanadium	0.002	0.0001									
Zinc	0.002	0.002									

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Run ID :Run Order: **ICPMS204-B_151210A: 47** SampType: **Laboratory Control Sample** Lab ID: **LCS-31414** Method: **E200.8**

Analysis Date: **12/10/15 16:03** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.45	0.030	2.5	0.002262	**98**	85	115				
Antimony	0.526	0.0010	0.5	0.0003002	**105**	85	115				
Arsenic	0.522	0.0010	0.5	0.0004712	**104**	85	115				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31414

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 47** SampType: **Laboratory Control Sample** Lab ID: **LCS-31414** Method: **E200.8**

Analysis Date: **12/10/15 16:03** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	0.521	0.050	0.5	0.0002635	104	85	115				
Beryllium	0.240	0.0010	0.25	0	96	85	115				
Boron	0.484	0.050	0.5	0.003406	96	85	115				
Cadmium	0.258	0.0010	0.25	0.0001109	103	85	115				
Calcium	27.2	1.0	25	0.1103	108	85	115				
Chromium	0.518	0.0050	0.5	0.0002174	104	85	115				
Cobalt	0.513	0.0050	0.5	0.0001116	103	85	115				
Copper	0.494	0.0050	0.5	0.0002434	99	85	115				
Iron	2.55	0.020	2.5	0.006712	102	85	115				
Lead	0.514	0.0010	0.5	0.0001308	103	85	115				
Magnesium	25.8	1.0	25	0.02326	103	85	115				
Manganese	2.55	0.0010	2.5	0.0003653	102	85	115				
Molybdenum	0.512	0.0010	0.5	0.0002451	102	85	115				
Nickel	0.502	0.0050	0.5	0	100	85	115				
Potassium	26.9	1.0	25	0.05496	107	85	115				
Selenium	0.512	0.0010	0.5	0	102	85	115				
Silver	0.0520	0.0010	0.05	0.0004747	103	85	115				
Sodium	25.8	1.0	25	0.2138	102	85	115				
Uranium	0.504	0.00030	0.5	0.0001741	101	85	115				
Vanadium	0.528	0.010	0.5	0.002418	105	85	115				
Zinc	0.504	0.010	0.5	0.001949	100	85	115				

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Run ID :Run Order: **ICPMS204-B_151210A: 51** SampType: **Sample Matrix Spike** Lab ID: **H15120092-001CMS3** Method: **E200.8**

Analysis Date: **12/10/15 16:15** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5.12	0.030	5	0.237	98	70	130				
Antimony	1.06	0.0010	1	0.0004182	106	70	130				
Arsenic	1.04	0.0010	1	0.003074	103	70	130				
Barium	1.10	0.050	1	0.05642	104	70	130				
Beryllium	0.478	0.0010	0.5	0	96	70	130				
Boron	1.01	0.050	1	0.02682	98	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31414

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 51** SampType: **Sample Matrix Spike** Lab ID: **H15120092-001CMS3** Method: **E200.8**

Analysis Date: **12/10/15 16:15** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.510	0.0010	0.5	0.0001264	102	70	130				
Calcium	86.1	1.0	50	33.46	105	70	130				
Chromium	1.03	0.0050	1	0.0007844	103	70	130				
Cobalt	1.01	0.0050	1	0.0003858	101	70	130				
Copper	0.990	0.0050	1	0.00344	99	70	130				
Iron	5.69	0.020	5	0.6504	101	70	130				
Lead	1.02	0.0010	1	0.0009208	102	70	130				
Magnesium	59.9	1.0	50	9.276	101	70	130				
Manganese	5.09	0.0010	5	0.07764	100	70	130				
Molybdenum	1.03	0.0010	1	0.004506	103	70	130				
Nickel	0.993	0.0050	1	0	99	70	130				
Potassium	55.8	1.0	50	3.11	105	70	130				
Selenium	1.01	0.0010	1	0	101	70	130				
Silver	0.102	0.0010	0.1	0.000827	101	70	130				
Sodium	63.0	1.0	50	12.64	101	70	130				
Uranium	1.01	0.00030	1	0.00338	101	70	130				
Vanadium	1.05	0.010	1	0.008104	104	70	130				
Zinc	0.998	0.010	1	0.0105	99	70	130				

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Run ID :Run Order: **ICPMS204-B_151210A: 52** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120092-001CMSD3** Method: **E200.8**

Analysis Date: **12/10/15 16:18** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5.19	0.030	5	0.237	99	70	130	5.122	1.3	20	
Antimony	1.07	0.0010	1	0.0004182	107	70	130	1.063	0.5	20	
Arsenic	1.05	0.0010	1	0.003074	105	70	130	1.036	1.2	20	
Barium	1.11	0.050	1	0.05642	105	70	130	1.098	1.1	20	
Beryllium	0.482	0.0010	0.5	0	96	70	130	0.478	0.9	20	
Boron	1.03	0.050	1	0.02682	100	70	130	1.011	1.5	20	
Cadmium	0.517	0.0010	0.5	0.0001264	103	70	130	0.5104	1.3	20	
Calcium	88.4	1.0	50	33.46	110	70	130	86.12	2.6	20	
Chromium	1.05	0.0050	1	0.0007844	105	70	130	1.034	1.6	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31414

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 52** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120092-001CMSD3** Method: **E200.8**

Analysis Date: **12/10/15 16:18** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt	1.03	0.0050	1	0.0003858	103	70	130	1.014	1.4	20	
Copper	0.998	0.0050	1	0.00344	99	70	130	0.9904	0.7	20	
Iron	5.74	0.020	5	0.6504	102	70	130	5.686	0.9	20	
Lead	1.04	0.0010	1	0.0009208	104	70	130	1.02	1.8	20	
Magnesium	60.2	1.0	50	9.276	102	70	130	59.86	0.6	20	
Manganese	5.20	0.0010	5	0.07764	102	70	130	5.086	2.2	20	
Molybdenum	1.06	0.0010	1	0.004506	105	70	130	1.033	2.3	20	
Nickel	1.01	0.0050	1	0	101	70	130	0.9926	1.5	20	
Potassium	56.8	1.0	50	3.11	107	70	130	55.8	1.8	20	
Selenium	1.02	0.0010	1	0	102	70	130	1.014	0.6	20	
Silver	0.103	0.0010	0.1	0.000827	103	70	130	0.1018	1.7	20	
Sodium	63.9	1.0	50	12.64	103	70	130	63	1.4	20	
Uranium	1.04	0.00030	1	0.00338	103	70	130	1.013	2.4	20	
Vanadium	1.07	0.010	1	0.008104	106	70	130	1.049	1.8	20	
Zinc	1.01	0.010	1	0.0105	100	70	130	0.9976	0.8	20	

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Run ID :Run Order: **ICPMS204-B_151210A: 101** SampType: **Sample Matrix Spike** Lab ID: **H15120093-008CMS3** Method: **E200.8**

Analysis Date: **12/10/15 19:06** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.79	0.030	2.5	0.3011	99	70	130				
Antimony	0.527	0.0010	0.5	0.000575	105	70	130				
Arsenic	0.529	0.0010	0.5	0.005875	105	70	130				
Barium	0.569	0.050	0.5	0.05114	104	70	130				
Beryllium	0.254	0.0010	0.25	0	102	70	130				
Boron	0.581	0.050	0.5	0.07444	101	70	130				
Cadmium	0.255	0.0010	0.25	0.0004218	102	70	130				
Calcium	86.4	1.0	25	60.93	102	70	130				
Chromium	0.528	0.0050	0.5	0.0004814	106	70	130				
Cobalt	0.510	0.0050	0.5	0.0005416	102	70	130				
Copper	0.524	0.0050	0.5	0.02956	99	70	130				
Iron	3.09	0.020	2.5	0.5634	101	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31414

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 101** SampType: **Sample Matrix Spike** Lab ID: **H15120093-008CMS3** Method: **E200.8**

Analysis Date: **12/10/15 19:06** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.516	0.0010	0.5	0.003453	102	70	130				
Magnesium	39.2	1.0	25	14.32	100	70	130				
Manganese	2.88	0.0010	2.5	0.3696	100	70	130				
Molybdenum	0.527	0.0010	0.5	0.005573	104	70	130				
Nickel	0.508	0.0050	0.5	0.001245	101	70	130				
Potassium	31.7	1.0	25	6.226	102	70	130				
Selenium	0.501	0.0010	0.5	0	100	70	130				
Silver	0.0511	0.0010	0.05	0.0005594	101	70	130				
Sodium	58.9	1.0	25	33.84	100	70	130				
Uranium	0.525	0.00030	0.5	0.006358	104	70	130				
Vanadium	0.536	0.010	0.5	0.003795	107	70	130				
Zinc	0.629	0.010	0.5	0.1414	98	70	130				

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Run ID :Run Order: **ICPMS204-B_151210A: 102** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-008CMSD3** Method: **E200.8**

Analysis Date: **12/10/15 19:09** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.81	0.030	2.5	0.3011	100	70	130	2.786	0.8	20	
Antimony	0.518	0.0010	0.5	0.000575	104	70	130	0.5267	1.6	20	
Arsenic	0.525	0.0010	0.5	0.005875	104	70	130	0.5292	0.7	20	
Barium	0.566	0.050	0.5	0.05114	103	70	130	0.5694	0.6	20	
Beryllium	0.253	0.0010	0.25	0	101	70	130	0.254	0.5	20	
Boron	0.582	0.050	0.5	0.07444	102	70	130	0.5806	0.3	20	
Cadmium	0.250	0.0010	0.25	0.0004218	100	70	130	0.2552	1.9	20	
Calcium	86.2	1.0	25	60.93	101	70	130	86.42	0.2	20	
Chromium	0.520	0.0050	0.5	0.0004814	104	70	130	0.5282	1.6	20	
Cobalt	0.512	0.0050	0.5	0.0005416	102	70	130	0.5101	0.4	20	
Copper	0.523	0.0050	0.5	0.02956	99	70	130	0.524	0.2	20	
Iron	3.09	0.020	2.5	0.5634	101	70	130	3.089	0.1	20	
Lead	0.513	0.0010	0.5	0.003453	102	70	130	0.5158	0.5	20	
Magnesium	39.3	1.0	25	14.32	100	70	130	39.22	0.2	20	
Manganese	2.84	0.0010	2.5	0.3696	99	70	130	2.877	1.1	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31414

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 102** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-008CMSD3** Method: **E200.8**

Analysis Date: **12/10/15 19:09** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	0.519	0.0010	0.5	0.005573	103	70	130	0.527	1.5	20	
Nickel	0.502	0.0050	0.5	0.001245	100	70	130	0.5079	1.2	20	
Potassium	31.3	1.0	25	6.226	100	70	130	31.68	1.1	20	
Selenium	0.497	0.0010	0.5	0	99	70	130	0.5012	0.9	20	
Silver	0.0507	0.0010	0.05	0.0005594	100	70	130	0.05108	0.8	20	
Sodium	58.9	1.0	25	33.84	100	70	130	58.92	0.1	20	
Uranium	0.523	0.00030	0.5	0.006358	103	70	130	0.5246	0.4	20	
Vanadium	0.532	0.010	0.5	0.003795	106	70	130	0.5363	0.7	20	
Zinc	0.622	0.010	0.5	0.1414	96	70	130	0.6291	1.1	20	

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Run ID :Run Order: **ICPMS204-B_151214B: 23** SampType: **Method Blank** Lab ID: **MB-31414** Method: **E200.8**

Analysis Date: **12/15/15 03:30** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	ND	6E-05									
Arsenic	8E-05	6E-05									
Barium	0.0001	0.0001									
Beryllium	ND	0.0003									
Boron	ND	0.002									
Cadmium	ND	1E-05									
Calcium	0.1	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	ND	0.0002									
Iron	ND	0.002									
Lead	ND	3E-05									
Magnesium	0.03	0.006									
Manganese	ND	0.0002									
Molybdenum	ND	4E-05									
Nickel	ND	3E-05									
Potassium	0.02	0.02									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31414

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151214B: 23** SampType: **Method Blank** Lab ID: **MB-31414** Method: **E200.8**

Analysis Date: **12/15/15 03:30** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	0.0004	0.0004									
Silver	0.0002	5E-05									
Sodium	0.06	0.004									
Uranium	ND	5E-05									
Vanadium	0.0008	0.0001									
Zinc	ND	0.002									

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Run ID :Run Order: **ICPMS204-B_151216A: 43** SampType: **Method Blank** Lab ID: **MB-31414** Method: **E200.8**

Analysis Date: **12/16/15 19:53** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	ND	6E-05									
Arsenic	ND	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	ND	0.002									
Cadmium	ND	1E-05									
Calcium	ND	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	ND	0.0002									
Iron	ND	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	ND	4E-05									
Nickel	ND	3E-05									
Potassium	ND	0.02									
Selenium	ND	0.0004									
Silver	ND	5E-05									
Sodium	ND	0.004									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31414

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151216A: 43** SampType: **Method Blank** Lab ID: **MB-31414** Method: **E200.8**

Analysis Date: **12/16/15 19:53** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Uranium	ND	5E-05									
Vanadium	ND	0.0001									
Zinc	ND	0.002									

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Run ID :Run Order: **ICPMS204-B_151217B: 26** SampType: **Method Blank** Lab ID: **MB-31414** Method: **E200.8**

Analysis Date: **12/18/15 10:01** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	0.0001	6E-05									
Arsenic	ND	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	ND	0.002									
Cadmium	ND	1E-05									
Calcium	ND	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	ND	0.0002									
Iron	0.002	0.002									
Lead	4E-05	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	4E-05	4E-05									
Nickel	ND	3E-05									
Potassium	ND	0.02									
Selenium	ND	0.0004									
Silver	0.0003	5E-05									
Sodium	ND	0.004									
Uranium	ND	5E-05									
Vanadium	0.0002	0.0001									
Zinc	ND	0.002									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31414

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151217B: 26** SampType: **Method Blank** Lab ID: **MB-31414** Method: **E200.8**

Analysis Date: **12/18/15 10:01** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31415

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151210A: 23** SampType: **Method Blank** Lab ID: **MB-31415** Method: **E200.7**
Analysis Date: **12/10/15 13:26** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.002									
Calcium	0.06	0.06									
Magnesium	ND	0.01									
Potassium	ND	0.07									
Sodium	0.03	0.01									

Associated samples: **H15120093-018C**

Run ID :Run Order: **ICP2-HE_151210A: 24** SampType: **Laboratory Control Sample** Lab ID: **LCS-31415** Method: **E200.7**
Analysis Date: **12/10/15 13:30** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.518	0.050	0.5	0	**104**	85	115				
Calcium	26.6	1.0	25	0.06165	**106**	85	115				
Magnesium	26.4	1.0	25	0	**105**	85	115				
Potassium	26.9	1.0	25	0	**107**	85	115				
Sodium	26.9	1.0	25	0.03383	**108**	85	115				

Associated samples: **H15120093-018C**

Run ID :Run Order: **ICP2-HE_151210A: 26** SampType: **Serial Dilution** Lab ID: **H15120093-018CDIL** Method: **E200.7**
Analysis Date: **12/10/15 13:37** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.050		0		0	0	0.01218		10	
Calcium	ND	1.0		0		0	0	0		10	
Magnesium	0.301	1.0		0		0	0	0		10	N
Potassium	ND	1.0		0		0	0	0		10	
Sodium	ND	1.0		0		0	0	0		10	

Associated samples: **H15120093-018C**

Run ID :Run Order: **ICP2-HE_151210A: 27** SampType: **Sample Matrix Spike** Lab ID: **H15120093-018CMS3** Method: **E200.7**
Analysis Date: **12/10/15 13:41** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.05	0.050	1	0.01218	**104**	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31415

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151210A: 27** SampType: **Sample Matrix Spike** Lab ID: **H15120093-018CMS3** Method: **E200.7**

Analysis Date: **12/10/15 13:41** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Calcium	52.2	1.0	50	0	104	70	130				
Magnesium	51.4	1.0	50	0	103	70	130				
Potassium	53.1	1.0	50	0	106	70	130				
Sodium	53.4	1.0	50	0	107	70	130				

Associated samples: **H15120093-018C**

Run ID :Run Order: **ICP2-HE_151210A: 28** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-018CMSD3** Method: **E200.7**

Analysis Date: **12/10/15 13:45** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.04	0.050	1	0.01218	103	70	130	1.05	0.6	20	
Calcium	53.3	1.0	50	0	107	70	130	52.2	2.1	20	
Magnesium	52.7	1.0	50	0	105	70	130	51.4	2.5	20	
Potassium	51.5	1.0	50	0	103	70	130	53.07	3.1	20	
Sodium	51.4	1.0	50	0	103	70	130	53.4	3.8	20	

Associated samples: **H15120093-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31415

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 27** SampType: **Method Blank** Lab ID: **MB-31415** Method: **E200.8**

Analysis Date: **12/10/15 15:00** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	ND	6E-05									
Arsenic	0.0002	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	ND	0.002									
Cadmium	ND	1E-05									
Calcium	0.04	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	ND	0.0002									
Iron	0.004	0.002									
Lead	ND	3E-05									
Magnesium	0.007	0.006									
Manganese	ND	0.0002									
Molybdenum	5E-05	4E-05									
Nickel	ND	3E-05									
Potassium	0.05	0.02									
Selenium	ND	0.0004									
Silver	ND	5E-05									
Sodium	0.09	0.004									
Uranium	ND	5E-05									
Vanadium	0.004	0.0001									
Zinc	ND	0.002									

Associated samples: **H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151210A: 28** SampType: **Laboratory Control Sample** Lab ID: **LCS-31415** Method: **E200.8**

Analysis Date: **12/10/15 15:03** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	2.47	0.030	2.5	0	**99**	85	115				
Antimony	0.542	0.0010	0.5	0	**108**	85	115				
Arsenic	0.527	0.0010	0.5	0.0002356	**105**	85	115				
Barium	0.534	0.050	0.5	0	**107**	85	115				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31415

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 28** SampType: **Laboratory Control Sample** Lab ID: **LCS-31415** Method: **E200.8**

Analysis Date: **12/10/15 15:03** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Beryllium	0.257	0.0010	0.25	0	103	85	115				
Boron	0.523	0.050	0.5	0	105	85	115				
Cadmium	0.265	0.0010	0.25	0	106	85	115				
Calcium	27.3	1.0	25	0.03972	109	85	115				
Chromium	0.529	0.0050	0.5	0	106	85	115				
Cobalt	0.517	0.0050	0.5	0	103	85	115				
Copper	0.514	0.0050	0.5	0	103	85	115				
Iron	2.58	0.020	2.5	0.003864	103	85	115				
Lead	0.521	0.0010	0.5	0	104	85	115				
Magnesium	26.4	1.0	25	0.007231	106	85	115				
Manganese	2.59	0.0010	2.5	0	103	85	115				
Molybdenum	0.525	0.0010	0.5	0.0000496	105	85	115				
Nickel	0.512	0.0050	0.5	0	102	85	115				
Potassium	26.7	1.0	25	0.05376	107	85	115				
Selenium	0.522	0.0010	0.5	0	104	85	115				
Silver	0.0521	0.0010	0.05	0	104	85	115				
Sodium	26.7	1.0	25	0.09164	107	85	115				
Uranium	0.518	0.00030	0.5	0	104	85	115				
Vanadium	0.534	0.010	0.5	0.003962	106	85	115				
Zinc	0.517	0.010	0.5	0	103	85	115				

Associated samples: **H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151210A: 135** SampType: **Sample Matrix Spike** Lab ID: **H15120093-018CMS3** Method: **E200.8**

Analysis Date: **12/10/15 20:54** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.83	0.030	5	0	97	70	130				
Antimony	1.05	0.0010	1	0.0002444	105	70	130				
Arsenic	1.04	0.0010	1	0	104	70	130				
Barium	1.04	0.050	1	0	104	70	130				
Beryllium	0.525	0.0010	0.5	0	105	70	130				
Boron	1.03	0.050	1	0	103	70	130				
Cadmium	0.518	0.0010	0.5	0.0000504	104	70	130				
Calcium	51.7	1.0	50	0.1247	103	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31415

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 135** SampType: **Sample Matrix Spike** Lab ID: **H15120093-018CMS3** Method: **E200.8**

Analysis Date: **12/10/15 20:54** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	1.06	0.0050	1	0	106	70	130				
Cobalt	1.04	0.0050	1	0	104	70	130				
Copper	1.04	0.0050	1	0	104	70	130				
Iron	5.14	0.020	5	0.00615	103	70	130				
Lead	1.03	0.0010	1	0.0001038	103	70	130				
Magnesium	51.8	1.0	50	0.0264	104	70	130				
Manganese	5.07	0.0010	5	0.00299	101	70	130				
Molybdenum	1.04	0.0010	1	0.0001104	104	70	130				
Nickel	1.03	0.0050	1	0	103	70	130				
Potassium	50.4	1.0	50	0	101	70	130				
Selenium	1.01	0.0010	1	0	101	70	130				
Silver	0.105	0.0010	0.1	0.0001736	104	70	130				
Sodium	52.1	1.0	50	0.03404	104	70	130				
Uranium	1.03	0.00030	1	0	103	70	130				
Vanadium	1.07	0.010	1	0.002622	106	70	130				
Zinc	1.02	0.010	1	0	102	70	130				

Associated samples: **H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151210A: 136** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-018CMSD3** Method: **E200.8**

Analysis Date: **12/10/15 20:57** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4.90	0.030	5	0	98	70	130	4.83	1.5	20	
Antimony	1.06	0.0010	1	0.0002444	106	70	130	1.051	0.7	20	
Arsenic	1.05	0.0010	1	0	105	70	130	1.04	1.0	20	
Barium	1.05	0.050	1	0	105	70	130	1.039	0.9	20	
Beryllium	0.525	0.0010	0.5	0	105	70	130	0.5246	0.0	20	
Boron	1.06	0.050	1	0	106	70	130	1.03	2.6	20	
Cadmium	0.523	0.0010	0.5	0.0000504	105	70	130	0.5178	1.0	20	
Calcium	52.6	1.0	50	0.1247	105	70	130	51.66	1.8	20	
Chromium	1.06	0.0050	1	0	106	70	130	1.062	0.2	20	
Cobalt	1.05	0.0050	1	0	105	70	130	1.039	0.7	20	
Copper	1.03	0.0050	1	0	103	70	130	1.041	1.2	20	
Iron	5.14	0.020	5	0.00615	103	70	130	5.144	0.0	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31415

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 136** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-018CMSD3** Method: **E200.8**

Analysis Date: **12/10/15 20:57** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	1.04	0.0010	1	0.0001038	**104**	70	130	1.028	**0.7**	20	
Magnesium	52.1	1.0	50	0.0264	**104**	70	130	51.8	**0.5**	20	
Manganese	5.05	0.0010	5	0.00299	**101**	70	130	5.068	**0.4**	20	
Molybdenum	1.05	0.0010	1	0.0001104	**105**	70	130	1.039	**1.5**	20	
Nickel	1.04	0.0050	1	0	**104**	70	130	1.031	**0.4**	20	
Potassium	50.9	1.0	50	0	**102**	70	130	50.42	**0.9**	20	
Selenium	1.02	0.0010	1	0	**102**	70	130	1.014	**0.5**	20	
Silver	0.105	0.0010	0.1	0.0001736	**105**	70	130	0.1046	**0.4**	20	
Sodium	52.6	1.0	50	0.03404	**105**	70	130	52.12	**0.8**	20	
Uranium	1.04	0.00030	1	0	**104**	70	130	1.029	**0.6**	20	
Vanadium	1.08	0.010	1	0.002622	**107**	70	130	1.066	**1.0**	20	
Zinc	1.02	0.010	1	0	**102**	70	130	1.021	**0.1**	20	

Associated samples: **H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151214B: 81** SampType: **Method Blank** Lab ID: **MB-31415** Method: **E200.8**

Analysis Date: **12/15/15 06:37** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	ND	6E-05									
Arsenic	ND	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	ND	0.002									
Cadmium	ND	1E-05									
Calcium	0.02	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	ND	0.0002									
Iron	ND	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	ND	4E-05									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31415

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151214B: 81** SampType: **Method Blank** Lab ID: **MB-31415** Method: **E200.8**

Analysis Date: **12/15/15 06:37** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nickel	ND	3E-05									
Potassium	0.04	0.02									
Selenium	ND	0.0004									
Silver	ND	5E-05									
Sodium	0.09	0.004									
Uranium	ND	5E-05									
Vanadium	0.0007	0.0001									
Zinc	ND	0.002									

Associated samples: **H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151216A: 76** SampType: **Method Blank** Lab ID: **MB-31415** Method: **E200.8**

Analysis Date: **12/16/15 21:38** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	ND	6E-05									
Arsenic	ND	6E-05									
Barium	0.0001	0.0001									
Beryllium	ND	0.0003									
Boron	ND	0.002									
Cadmium	ND	1E-05									
Calcium	0.04	0.008									
Chromium	0.0001	0.0001									
Cobalt	ND	3E-05									
Copper	ND	0.0002									
Iron	ND	0.002									
Lead	ND	3E-05									
Magnesium	0.02	0.006									
Manganese	0.0002	0.0002									
Molybdenum	ND	4E-05									
Nickel	ND	3E-05									
Potassium	0.1	0.02									
Selenium	ND	0.0004									
Silver	ND	5E-05									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31415

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151216A: 76** SampType: **Method Blank** Lab ID: **MB-31415** Method: **E200.8**

Analysis Date: **12/16/15 21:38** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	0.09	0.004									
Uranium	ND	5E-05									
Vanadium	ND	0.0001									
Zinc	ND	0.002									

Associated samples: **H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151217B: 45** SampType: **Method Blank** Lab ID: **MB-31415** Method: **E200.8**

Analysis Date: **12/18/15 11:03** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.002									
Antimony	ND	6E-05									
Arsenic	ND	6E-05									
Barium	ND	0.0001									
Beryllium	ND	0.0003									
Boron	ND	0.002									
Cadmium	ND	1E-05									
Calcium	ND	0.008									
Chromium	ND	0.0001									
Cobalt	ND	3E-05									
Copper	ND	0.0002									
Iron	0.002	0.002									
Lead	ND	3E-05									
Magnesium	ND	0.006									
Manganese	ND	0.0002									
Molybdenum	6E-05	4E-05									
Nickel	ND	3E-05									
Potassium	ND	0.02									
Selenium	ND	0.0004									
Silver	ND	5E-05									
Sodium	0.05	0.004									
Uranium	ND	5E-05									
Vanadium	0.0002	0.0001									
Zinc	ND	0.002									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31415

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151217B: 45** SampType: **Method Blank** Lab ID: **MB-31415** Method: **E200.8**

Analysis Date: **12/18/15 11:03** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E200.2**

Analytes 24	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15120093-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31423

Date: *29-Dec-15*

Run ID :Run Order: **FIA202-HE_151208B: 12** SampType: **Laboratory Control Sample** Lab ID: **LCS-31423** Method: **E365.1**
Analysis Date: **12/08/15 12:16** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.386	0.010	0.4	0	96	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D**

Run ID :Run Order: **FIA202-HE_151208B: 13** SampType: **Method Blank** Lab ID: **MB-31423** Method: **E365.1**
Analysis Date: **12/08/15 12:17** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	ND	0.001									

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D**

Run ID :Run Order: **FIA202-HE_151208B: 16** SampType: **Sample Matrix Spike** Lab ID: **H15120092-001Dms** Method: **E365.1**
Analysis Date: **12/08/15 12:20** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.283	0.010	0.2	0.08513	99	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D**

Run ID :Run Order: **FIA202-HE_151208B: 17** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120092-001Dmsd** Method: **E365.1**
Analysis Date: **12/08/15 12:21** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.276	0.010	0.2	0.08513	96	90	110	0.2825	2.3	20	

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D**

Run ID :Run Order: **FIA202-HE_151208B: 44** SampType: **Sample Matrix Spike** Lab ID: **H15120093-007DMS** Method: **E365.1**
Analysis Date: **12/08/15 12:49** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.512	0.010	0.2	0.3339	89	90	110				S

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31423

Date: *29-Dec-15*

Run ID :Run Order: **FIA202-HE_151208B: 44** SampType: **Sample Matrix Spike** Lab ID: **H15120093-007DMS** Method: **E365.1**

Analysis Date: **12/08/15 12:49** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D**

Run ID :Run Order: **FIA202-HE_151208B: 45** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-007DMSD** Method: **E365.1**

Analysis Date: **12/08/15 12:50** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.532	0.010	0.2	0.3339	99	90	110	0.5123	3.8	20	

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31424

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151209A: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-31424** Method: **A4500 N-C**
Analysis Date: **12/09/15 10:44** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	6.01	0.15	6.37	0.02055	94	90	110				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A**

Run ID :Run Order: **FIA203-HE_151209A: 12** SampType: **Method Blank** Lab ID: **MB-31424** Method: **A4500 N-C**
Analysis Date: **12/09/15 10:45** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.02	0.005									

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A**

Run ID :Run Order: **FIA203-HE_151209A: 18** SampType: **Sample Matrix Spike** Lab ID: **H15120093-002AMS** Method: **A4500 N-C**
Analysis Date: **12/09/15 10:52** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.871	0.10	1	0.02612	84	90	110				S

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A**

Run ID :Run Order: **FIA203-HE_151209A: 19** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-002AMSD** Method: **A4500 N-C**
Analysis Date: **12/09/15 10:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.866	0.10	1	0.02612	84	90	110	0.8706	0.5	20	S

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31449

Date: *29-Dec-15*

Run ID :Run Order: **HGCV201-H_151211A: 10** SampType: **Method Blank** Lab ID: **MB-31449** Method: **SW7471B**
Analysis Date: **12/11/15 14:37** Units: **mg/kg** **Prep Info:** Prep Date: **12/11/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.010									

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A**

Run ID :Run Order: **HGCV201-H_151211A: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-31449** Method: **SW7471B**
Analysis Date: **12/11/15 14:39** Units: **mg/kg** **Prep Info:** Prep Date: **12/11/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.6	0.50	5	0	111	71	126.4				

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A**

Run ID :Run Order: **HGCV201-H_151211A: 12** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-31449** Method: **SW7471B**
Analysis Date: **12/11/15 14:41** Units: **mg/kg** **Prep Info:** Prep Date: **12/11/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.0	0.50	1	0	105	80	120				

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A**

Run ID :Run Order: **HGCV201-H_151211A: 27** SampType: **Sample Matrix Spike** Lab ID: **H15120093-020AMS** Method: **SW7471B**
Analysis Date: **12/11/15 15:11** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/11/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.4	0.50	1.217	0.05849	109	80	120				

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A**

Run ID :Run Order: **HGCV201-H_151211A: 28** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-020AMSD** Method: **SW7471B**
Analysis Date: **12/11/15 15:13** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/11/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.4	0.50	1.229	0.05849	106	80	120	1.38	1.6	20	

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31454

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151211C: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-31454** Method: **A4500 N-C**
Analysis Date: **12/11/15 13:22** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	6.02	0.15	6.37	0	94	90	110				

Associated samples: **H15120093-010A, H15120093-012A, H15120093-014A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **FIA203-HE_151211C: 12** SampType: **Method Blank** Lab ID: **MB-31454** Method: **A4500 N-C**
Analysis Date: **12/11/15 13:23** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	ND	0.005									

Associated samples: **H15120093-010A, H15120093-012A, H15120093-014A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **FIA203-HE_151211C: 14** SampType: **Sample Matrix Spike** Lab ID: **H15120093-008AMS** Method: **A4500 N-C**
Analysis Date: **12/11/15 13:25** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	6.57	0.15	5	2.149	88	90	110				S

Associated samples: **H15120093-010A, H15120093-012A, H15120093-014A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **FIA203-HE_151211C: 15** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-008AMSD** Method: **A4500 N-C**
Analysis Date: **12/11/15 13:26** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	6.46	0.15	5	2.149	86	90	110	6.57	1.6	20	S

Associated samples: **H15120093-010A, H15120093-012A, H15120093-014A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **FIA203-HE_151211C: 28** SampType: **Sample Matrix Spike** Lab ID: **H15120093-018Ams** Method: **A4500 N-C**
Analysis Date: **12/11/15 13:42** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.901	0.10	1	0	90	90	110				

Associated samples: **H15120093-010A, H15120093-012A, H15120093-014A, H15120093-017A, H15120093-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31454

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151211C: 29** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-018Amsd** Method: **A4500 N-C**

Analysis Date: **12/11/15 13:43** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.896	0.10	1	0	**90**	90	110	0.901	**0.5**	20	

Associated samples: **H15120093-010A, H15120093-012A, H15120093-014A, H15120093-017A, H15120093-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31460

Date: *29-Dec-15*

Run ID :Run Order: **HGCV201-H_151215A: 4** SampType: **Method Blank** Lab ID: **MB-31460** Method: **SW7471B**
Analysis Date: **12/15/15 10:26** Units: **mg/kg** **Prep Info:** Prep Date: **12/14/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.010									

Associated samples: **H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-037A, H15120093-038A, H15120093-039A**

Run ID :Run Order: **HGCV201-H_151215A: 5** SampType: **Laboratory Control Sample** Lab ID: **LCS-31460** Method: **SW7471B**
Analysis Date: **12/15/15 10:28** Units: **mg/kg** **Prep Info:** Prep Date: **12/14/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.9	0.50	5	0	118	71	126.4				

Associated samples: **H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-037A, H15120093-038A, H15120093-039A**

Run ID :Run Order: **HGCV201-H_151215A: 6** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-31460** Method: **SW7471B**
Analysis Date: **12/15/15 10:30** Units: **mg/kg** **Prep Info:** Prep Date: **12/14/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.1	0.50	1	0	107	80	120				

Associated samples: **H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-037A, H15120093-038A, H15120093-039A**

Run ID :Run Order: **HGCV201-H_151215A: 11** SampType: **Sample Matrix Spike** Lab ID: **H15120100-014AMS** Method: **SW7471B**
Analysis Date: **12/15/15 10:44** Units: **mg/kg** **Prep Info:** Prep Date: **12/14/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.0	0.50	0.97	1.243	73	80	120				S

Associated samples: **H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-037A, H15120093-038A, H15120093-039A**

Run ID :Run Order: **HGCV201-H_151215A: 12** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120100-014AMSD** Method: **SW7471B**
Analysis Date: **12/15/15 10:46** Units: **mg/kg** **Prep Info:** Prep Date: **12/14/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	2.3	0.50	0.97	1.243	106	80	120	1.955	15	20	

Associated samples: **H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-037A, H15120093-038A, H15120093-039A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31460

Date: *29-Dec-15*

Run ID :Run Order: **HGCV201-H_151215A: 26** SampType: **Sample Matrix Spike** Lab ID: **H15120093-038AMS** Method: **SW7471B**

Analysis Date: **12/15/15 11:25** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/14/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.7	0.50	1.415	0.1105	**109**	80	120				

Associated samples: **H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-037A, H15120093-038A, H15120093-039A**

Run ID :Run Order: **HGCV201-H_151215A: 29** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-038AMSD** Method: **SW7471B**

Analysis Date: **12/15/15 12:01** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/14/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.6	0.50	1.415	0.1105	**108**	80	120	1.659	**1.3**	20	

Associated samples: **H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-037A, H15120093-038A, H15120093-039A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31468

Date: *29-Dec-15*

Run ID :Run Order: **FIA202-HE_151214B: 12** SampType: **Laboratory Control Sample** Lab ID: **LCS-31468** Method: **E365.1**
Analysis Date: **12/14/15 12:44** Units: **mg/L** **Prep Info:** Prep Date: **12/14/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.412	0.010	0.4	0	103	90	110				

Associated samples: **H15120093-017D, H15120093-018D**

Run ID :Run Order: **FIA202-HE_151214B: 13** SampType: **Method Blank** Lab ID: **MB-31468** Method: **E365.1**
Analysis Date: **12/14/15 12:45** Units: **mg/L** **Prep Info:** Prep Date: **12/14/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	ND	0.001									

Associated samples: **H15120093-017D, H15120093-018D**

Run ID :Run Order: **FIA202-HE_151214B: 16** SampType: **Sample Matrix Spike** Lab ID: **H15120093-018Dms** Method: **E365.1**
Analysis Date: **12/14/15 12:48** Units: **mg/L** **Prep Info:** Prep Date: **12/14/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.187	0.010	0.2	0	94	90	110				

Associated samples: **H15120093-017D, H15120093-018D**

Run ID :Run Order: **FIA202-HE_151214B: 17** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-018Dmsd** Method: **E365.1**
Analysis Date: **12/14/15 12:49** Units: **mg/L** **Prep Info:** Prep Date: **12/14/2015** Prep Method: **E365.1**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.196	0.010	0.2	0	98	90	110	0.1873	4.7	20	

Associated samples: **H15120093-017D, H15120093-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31476

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151217A: 38** SampType: **Method Blank** Lab ID: **MB-31476** Method: **SW6010B**

Analysis Date: **12/17/15 14:33** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.9	0.7									
Barium	0.1	0.02									
Beryllium	ND	0.010									
Copper	ND	0.2									
Iron	2	0.6									
Manganese	0.03	0.02									
Nickel	ND	0.08									
Vanadium	ND	0.2									
Zinc	0.3	0.1									

Associated samples: **H15120093-019A, H15120093-022A, H15120093-025A, H15120093-028A, H15120093-031A, H15120093-034A, H15120093-037A, H15120093-040A, H15120093-043A**

Run ID :Run Order: **ICP2-HE_151217A: 39** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-31476** Method: **SW6010B**

Analysis Date: **12/17/15 14:37** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	258	5.0	247.8	0.8911	**104**	80	120				
Barium	51.9	1.0	49.55	0.1318	**105**	80	120				
Beryllium	26.6	1.0	24.78	0	**107**	80	120				
Copper	51.4	1.0	49.55	0	**104**	80	120				
Iron	259	5.0	247.8	2.049	**104**	80	120				
Manganese	257	1.0	247.8	0.02735	**104**	80	120				
Nickel	50.7	1.0	49.55	0	**102**	80	120				
Vanadium	51.1	1.0	49.55	0	**103**	80	120				
Zinc	49.5	1.0	49.55	0.2538	**99**	80	120				

Associated samples: **H15120093-019A, H15120093-022A, H15120093-025A, H15120093-028A, H15120093-031A, H15120093-034A, H15120093-037A, H15120093-040A, H15120093-043A**

Run ID :Run Order: **ICP2-HE_151217A: 40** SampType: **Laboratory Control Sample** Lab ID: **LCS-31476** Method: **SW6010B**

Analysis Date: **12/17/15 14:41** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9970	5.0	9830	0.8911	**101**	46.3	130.2				
Barium	177	1.0	187	0.1318	**95**	78.6	112.8				
Beryllium	83.8	1.0	83.6	0	**100**	76.2	108				
Copper	127	1.2	137	0	**93**	76.6	108.8				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31476

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151217A: 40** SampType: **Laboratory Control Sample** Lab ID: **LCS-31476** Method: **SW6010B**

Analysis Date: **12/17/15 14:41** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Iron	16400	5.0	16300	2.049	100	51.7	131.9				
Manganese	457	1.0	434	0.02735	105	81.1	116.6				
Nickel	80.1	1.0	86.2	0	93	72.3	105				
Vanadium	113	1.0	114	0	99	67	107				
Zinc	243	1.0	231	0.2538	105	75.3	111.7				

Associated samples: **H15120093-019A, H15120093-022A, H15120093-025A, H15120093-028A, H15120093-031A, H15120093-034A, H15120093-037A, H15120093-040A, H15120093-043A**

Run ID :Run Order: **ICP2-HE_151217A: 57** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15120093-043APDS** Method: **SW6010B**

Analysis Date: **12/17/15 15:43** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	28000	7.7	2907	24430		75	125				A
Barium	877	1.0	581.3	319.8	96	75	125				
Beryllium	264	1.0	290.7	1.225	91	75	125				
Copper	1180	2.6	581.3	629.1	95	75	125				
Iron	33200	6.8	2907	31090		75	125				A
Manganese	6180	1.0	2907	3683	86	75	125				
Nickel	523	1.0	581.3	22.25	86	75	125				
Vanadium	585	1.7	581.3	68.84	89	75	125				
Zinc	2180	1.1	581.3	1691	84	75	125				

Associated samples: **H15120093-019A, H15120093-022A, H15120093-025A, H15120093-028A, H15120093-031A, H15120093-034A, H15120093-037A, H15120093-040A, H15120093-043A**

Run ID :Run Order: **ICP2-HE_151217A: 58** SampType: **Sample Matrix Spike** Lab ID: **H15120093-043AMS** Method: **SW6010B**

Analysis Date: **12/17/15 15:47** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	28400	7.7	575.5	24430		75	125				A
Barium	438	1.0	115.1	319.8	102	75	125				
Beryllium	59.2	1.0	57.55	1.225	101	75	125				
Copper	728	2.5	115.1	629.1		75	125				A
Iron	31900	6.8	575.5	31090		75	125				A
Manganese	3970	1.0	575.5	3683		75	125				A
Nickel	131	1.0	115.1	22.25	95	75	125				
Vanadium	186	1.7	115.1	68.84	102	75	125				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31476

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151217A: 58** SampType: **Sample Matrix Spike** Lab ID: **H15120093-043AMS** Method: **SW6010B**

Analysis Date: **12/17/15 15:47** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	1650	1.1	115.1	1691		75	125				A

Associated samples: **H15120093-019A, H15120093-022A, H15120093-025A, H15120093-028A, H15120093-031A, H15120093-034A, H15120093-037A, H15120093-040A, H15120093-043A**

Run ID :Run Order: **ICP2-HE_151217A: 59** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-043AMSD** Method: **SW6010B**

Analysis Date: **12/17/15 15:51** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	30600	7.9	596.6	24430		75	125	28390	7.6	20	A
Barium	464	1.0	119.3	319.8	121	75	125	437.7	5.8	20	
Beryllium	60.5	1.0	59.66	1.225	99	75	125	59.22	2.2	20	
Copper	804	2.6	119.3	629.1		75	125	728.5	9.8	20	A
Iron	32200	7.0	596.6	31090		75	125	31880	0.9	20	A
Manganese	4560	1.0	596.6	3683		75	125	3968	14	20	A
Nickel	136	1.0	119.3	22.25	95	75	125	131.2	3.4	20	
Vanadium	190	1.8	119.3	68.84	101	75	125	186.2	1.8	20	
Zinc	1830	1.1	119.3	1691		75	125	1646	10	20	A

Associated samples: **H15120093-019A, H15120093-022A, H15120093-025A, H15120093-028A, H15120093-031A, H15120093-034A, H15120093-037A, H15120093-040A, H15120093-043A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31476

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151217A: 36** SampType: **Method Blank** Lab ID: **MB-31476** Method: **SW6020**

Analysis Date: **12/17/15 18:37** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.07	0.05									
Boron	ND	2									
Cadmium	ND	0.2									
Chromium	0.1	0.04									
Cobalt	ND	0.04									
Lead	ND	0.1									
Molybdenum	ND	0.1									
Selenium	ND	0.2									
Silver	ND	0.06									
Uranium	ND	0.06									

Associated samples: **H15120093-019A, H15120093-022A, H15120093-025A, H15120093-028A, H15120093-031A, H15120093-034A, H15120093-037A, H15120093-040A, H15120093-043A**

Run ID :Run Order: **ICPMS204-B_151217A: 37** SampType: **Laboratory Control Sample** Lab ID: **LCS-31476** Method: **SW6020**

Analysis Date: **12/17/15 18:41** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	64.8	1.0	240	0	**27**	0	92.9				
Arsenic	173	1.0	196	0.0663	**88**	71.4	105.1				
Boron	113	2.3	129	0	**88**	59.5	106.2				
Cadmium	98.6	1.0	99	0	**100**	73.9	106.1				
Chromium	113	1.0	117	0.1488	**97**	73.5	108.5				
Cobalt	111	1.0	108	0	**103**	74.2	105.6				
Lead	105	1.0	105	0	**100**	74.4	108.6				
Molybdenum	117	1.0	127	0	**92**	66.5	103.1				
Selenium	197	1.0	205	0	**96**	71.2	110.2				
Silver	42.7	1.0	42.1	0	**101**	70.8	111.9				
Uranium	100	1.0	99.9	0	**100**	80.1	120.1				

Associated samples: **H15120093-019A, H15120093-022A, H15120093-025A, H15120093-028A, H15120093-031A, H15120093-034A, H15120093-037A, H15120093-040A, H15120093-043A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31476

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151217A: 38** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-31476** Method: **SW6020**

Analysis Date: **12/17/15 18:44** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	51.9	1.0	49.55	0	105	80	120				
Arsenic	49.5	1.0	49.55	0.0663	100	80	120				
Boron	49.8	2.1	49.55	0	101	80	120				
Cadmium	25.4	1.0	24.78	0	102	80	120				
Chromium	49.2	1.0	49.55	0.1488	99	80	120				
Cobalt	50.0	1.0	49.55	0	101	80	120				
Lead	51.0	1.0	49.55	0	103	80	120				
Molybdenum	49.1	1.0	49.55	0	99	80	120				
Selenium	48.6	1.0	49.55	0	98	80	120				
Silver	25.5	1.0	24.78	0	103	80	120				
Uranium	51.3	1.0	49.55	0	104	80	120				

Associated samples: **H15120093-019A, H15120093-022A, H15120093-025A, H15120093-028A, H15120093-031A, H15120093-034A, H15120093-037A, H15120093-040A, H15120093-043A**

Run ID :Run Order: **ICPMS204-B_151217A: 55** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15120093-043APDS** Method: **SW6020**

Analysis Date: **12/17/15 19:40** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method:

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	1150	1.0	1129	0.6414	101	75	125				
Arsenic	1090	1.0	1129	43.55	93	75	125				
Boron	1000	4.9	1129	8.257	88	75	125				
Cadmium	552	1.0	564.4	14.13	95	75	125				
Chromium	1080	1.0	1129	39.4	93	75	125				
Cobalt	1050	1.0	1129	12.33	92	75	125				
Lead	1210	1.0	1129	174.6	91	75	125				
Molybdenum	1070	1.0	1129	3.077	94	75	125				
Selenium	1000	1.0	1129	1.38	89	75	125				
Silver	531	1.0	564.4	2.633	94	75	125				
Uranium	1100	1.0	1129	8.373	96	75	125				

Associated samples: **H15120093-019A, H15120093-022A, H15120093-025A, H15120093-028A, H15120093-031A, H15120093-034A, H15120093-037A, H15120093-040A, H15120093-043A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31476

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151217A: 56** SampType: **Sample Matrix Spike** Lab ID: **H15120093-043AMS** Method: **SW6020**

Analysis Date: **12/17/15 19:42** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	48.5	1.0	115.1	0.6414	42	75	125				S
Arsenic	157	1.0	115.1	43.55	98	75	125				
Boron	123	5.0	115.1	8.257	100	75	125				
Cadmium	72.1	1.0	57.55	14.13	101	75	125				
Chromium	153	1.0	115.1	39.4	99	75	125				
Cobalt	127	1.0	115.1	12.33	100	75	125				
Lead	289	1.0	115.1	174.6	100	75	125				
Molybdenum	116	1.0	115.1	3.077	98	75	125				
Selenium	113	1.0	115.1	1.38	97	75	125				
Silver	61.7	1.0	57.55	2.633	103	75	125				
Uranium	125	1.0	115.1	8.373	102	75	125				

Associated samples: **H15120093-019A, H15120093-022A, H15120093-025A, H15120093-028A, H15120093-031A, H15120093-034A, H15120093-037A, H15120093-040A, H15120093-043A**

Run ID :Run Order: **ICPMS204-B_151217A: 57** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-043AMSD** Method: **SW6020**

Analysis Date: **12/17/15 19:46** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 11	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	43.1	1.0	119.3	0.6414	36	75	125	48.54	12	20	S
Arsenic	166	1.0	119.3	43.55	103	75	125	156.9	5.9	20	
Boron	119	5.2	119.3	8.257	92	75	125	123.3	3.9	20	
Cadmium	76.1	1.0	59.66	14.13	104	75	125	72.07	5.5	20	
Chromium	160	1.0	119.3	39.4	101	75	125	153.1	4.5	20	
Cobalt	132	1.0	119.3	12.33	100	75	125	127	4.0	20	
Lead	305	1.0	119.3	174.6	109	75	125	289.3	5.4	20	
Molybdenum	117	1.0	119.3	3.077	96	75	125	115.6	1.5	20	
Selenium	117	1.0	119.3	1.38	97	75	125	113.3	2.9	20	
Silver	64.2	1.0	59.66	2.633	103	75	125	61.7	4.0	20	
Uranium	128	1.0	119.3	8.373	100	75	125	125.2	2.1	20	

Associated samples: **H15120093-019A, H15120093-022A, H15120093-025A, H15120093-028A, H15120093-031A, H15120093-034A, H15120093-037A, H15120093-040A, H15120093-043A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31477

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151217A: 60** SampType: **Method Blank** Lab ID: **MB-31477** Method: **SW6010B**
Analysis Date: **12/17/15 15:54** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	1	0.3									
Beryllium	ND	0.009									
Copper	0.2	0.2									
Iron	2	0.6									
Manganese	0.04	0.02									
Nickel	ND	0.07									
Zinc	0.3	0.09									

Associated samples: **H15120093-020A, H15120093-023A, H15120093-026A, H15120093-029A, H15120093-032A, H15120093-035A, H15120093-038A, H15120093-041A, H15120093-044A**

Run ID :Run Order: **ICP2-HE_151217A: 61** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-31477** Method: **SW6010B**
Analysis Date: **12/17/15 15:58** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	272	5.0	257.5	1.033	**105**	80	120				
Beryllium	26.9	1.0	25.75	0	**105**	80	120				
Copper	53.7	1.0	51.5	0.2375	**104**	80	120				
Iron	263	5.0	257.5	2.028	**101**	80	120				
Manganese	259	1.0	257.5	0.03858	**101**	80	120				
Nickel	51.2	1.0	51.5	0	**99**	80	120				
Zinc	50.6	1.0	51.5	0.2761	**98**	80	120				

Associated samples: **H15120093-020A, H15120093-023A, H15120093-026A, H15120093-029A, H15120093-032A, H15120093-035A, H15120093-038A, H15120093-041A, H15120093-044A**

Run ID :Run Order: **ICP2-HE_151217A: 62** SampType: **Laboratory Control Sample** Lab ID: **LCS-31477** Method: **SW6010B**
Analysis Date: **12/17/15 16:02** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	9730	5.0	9830	1.033	**99**	46.3	130.2				
Beryllium	81.7	1.0	83.6	0	**98**	76.2	108				
Copper	125	1.1	137	0.2375	**91**	76.6	108.8				
Iron	15900	5.0	16300	2.028	**98**	51.7	131.9				
Manganese	418	1.0	434	0.03858	**96**	81.1	116.6				
Nickel	78.2	1.0	86.2	0	**91**	72.3	105				
Zinc	235	1.0	231	0.2761	**102**	75.3	111.7				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31477

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151217A: 62** SampType: **Laboratory Control Sample** Lab ID: **LCS-31477** Method: **SW6010B**
Analysis Date: **12/17/15 16:02** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15120093-020A, H15120093-023A, H15120093-026A, H15120093-029A, H15120093-032A, H15120093-035A, H15120093-038A, H15120093-041A, H15120093-044A**

Run ID :Run Order: **ICP2-HE_151217A: 90** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15120093-044APDS** Method: **SW6010B**
Analysis Date: **12/17/15 17:47** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	7990	5.0	1734	6190	**104**	75	125				
Beryllium	166	1.0	173.4	0.2782	**96**	75	125				
Copper	434	1.5	346.9	105.2	**95**	75	125				
Iron	18600	5.0	1734	16920		75	125				A
Manganese	2490	1.0	1734	853.7	**95**	75	125				
Nickel	338	1.0	346.9	5.04	**96**	75	125				
Zinc	712	1.0	346.9	367.7	**99**	75	125				

Associated samples: **H15120093-020A, H15120093-023A, H15120093-026A, H15120093-029A, H15120093-032A, H15120093-035A, H15120093-038A, H15120093-041A, H15120093-044A**

Run ID :Run Order: **ICP2-HE_151217A: 91** SampType: **Sample Matrix Spike** Lab ID: **H15120093-044AMS** Method: **SW6010B**
Analysis Date: **12/17/15 17:51** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	7780	5.0	308.6	6190		75	125				A
Beryllium	32.8	1.0	30.86	0.2782	**105**	75	125				
Copper	159	1.4	61.71	105.2	**87**	75	125				
Iron	17100	5.0	308.6	16920		75	125				A
Manganese	1160	1.0	308.6	853.7	**98**	75	125				
Nickel	69.4	1.0	61.71	5.04	**104**	75	125				
Zinc	446	1.0	61.71	367.7		75	125				A

Associated samples: **H15120093-020A, H15120093-023A, H15120093-026A, H15120093-029A, H15120093-032A, H15120093-035A, H15120093-038A, H15120093-041A, H15120093-044A**

Run ID :Run Order: **ICP2-HE_151217A: 92** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-044AMSD** Method: **SW6010B**
Analysis Date: **12/17/15 17:55** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	8430	5.0	305.6	6190		75	125	7782	**8.1**	20	A
Beryllium	33.6	1.0	30.56	0.2782	**109**	75	125	32.79	**2.4**	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31477

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151217A: 92** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-044AMSD** Method: **SW6010B**

Analysis Date: **12/17/15 17:55** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	182	1.3	61.12	105.2	126	75	125	159	14	20	S
Iron	19200	5.0	305.6	16920		75	125	17090	12	20	A
Manganese	1260	1.0	305.6	853.7	133	75	125	1156	8.5	20	S
Nickel	72.5	1.0	61.12	5.04	110	75	125	69.38	4.4	20	
Zinc	478	1.0	61.12	367.7		75	125	445.8	7.0	20	A

Associated samples: **H15120093-020A, H15120093-023A, H15120093-026A, H15120093-029A, H15120093-032A, H15120093-035A, H15120093-038A, H15120093-041A, H15120093-044A**

- S= Spike recovery outside of QC advisory limits. The recovery in he Laboratory Control Sample was within QC advisory limits. This suggests that the Matrix Spike recover is due to matrix interference.

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31477

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151217A: 61** SampType: **Method Blank** Lab ID: **MB-31477** Method: **SW6020**

Analysis Date: **12/17/15 19:58** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.1	0.05									
Barium	ND	0.4									
Boron	ND	2									
Cadmium	ND	0.2									
Chromium	0.2	0.04									
Cobalt	0.05	0.04									
Lead	0.1	0.10									
Molybdenum	ND	0.09									
Selenium	ND	0.2									
Silver	ND	0.05									
Uranium	0.06	0.06									
Vanadium	ND	0.4									

Associated samples: **H15120093-020A, H15120093-023A, H15120093-026A, H15120093-029A, H15120093-032A, H15120093-035A, H15120093-038A, H15120093-041A, H15120093-044A**

Run ID :Run Order: **ICPMS204-B_151217A: 62** SampType: **Laboratory Control Sample** Lab ID: **LCS-31477** Method: **SW6020**

Analysis Date: **12/17/15 20:01** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	68.3	1.0	240	0	**28**	0	92.9				
Arsenic	170	1.0	196	0.1198	**87**	71.4	105.1				
Barium	189	1.0	187	0	**101**	78.6	112.8				
Boron	107	2.2	129	0	**83**	59.5	106.2				
Cadmium	97.7	1.0	99	0	**99**	73.9	106.1				
Chromium	109	1.0	117	0.2149	**93**	73.5	108.5				
Cobalt	108	1.0	108	0.05386	**100**	74.2	105.6				
Lead	101	1.0	105	0.1038	**97**	74.4	108.6				
Molybdenum	116	1.0	127	0	**91**	66.5	103.1				
Selenium	191	1.0	205	0	**93**	71.2	110.2				
Silver	42.4	1.0	42.1	0	**101**	70.8	111.9				
Uranium	97.9	1.0	99.9	0.05982	**98**	80.1	120.1				
Vanadium	107	1.0	114	0	**94**	67	107				

Associated samples: **H15120093-020A, H15120093-023A, H15120093-026A, H15120093-029A, H15120093-032A, H15120093-035A, H15120093-038A, H15120093-041A, H15120093-044A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31477

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151217A: 63** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-31477** Method: **SW6020**

Analysis Date: **12/17/15 20:05** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	54.5	1.0	51.5	0	106	80	120				
Arsenic	51.8	1.0	51.5	0.1198	100	80	120				
Barium	55.7	1.0	51.5	0	108	80	120				
Boron	51.5	2.2	51.5	0	100	80	120				
Cadmium	26.6	1.0	25.75	0	103	80	120				
Chromium	50.8	1.0	51.5	0.2149	98	80	120				
Cobalt	51.8	1.0	51.5	0.05386	100	80	120				
Lead	52.8	1.0	51.5	0.1038	102	80	120				
Molybdenum	50.9	1.0	51.5	0	99	80	120				
Selenium	51.2	1.0	51.5	0	99	80	120				
Silver	26.9	1.0	25.75	0	105	80	120				
Uranium	53.0	1.0	51.5	0.05982	103	80	120				
Vanadium	50.1	1.0	51.5	0	97	80	120				

Associated samples: **H15120093-020A, H15120093-023A, H15120093-026A, H15120093-029A, H15120093-032A, H15120093-035A, H15120093-038A, H15120093-041A, H15120093-044A**

Run ID :Run Order: **ICPMS204-B_151217A: 80** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15120093-044APDS** Method: **SW6020**

Analysis Date: **12/17/15 20:59** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method:

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	681	1.0	673.6	0.2997	101	75	125				
Arsenic	647	1.0	673.6	18.9	93	75	125				
Barium	829	1.0	673.6	128.6	104	75	125				
Boron	598	2.9	673.6	0	89	75	125				
Cadmium	324	1.0	336.8	1.256	96	75	125				
Chromium	643	1.0	673.6	12.69	94	75	125				
Cobalt	628	1.0	673.6	4.437	93	75	125				
Lead	664	1.0	673.6	41.59	92	75	125				
Molybdenum	633	1.0	673.6	0.8689	94	75	125				
Selenium	604	1.0	673.6	0.2766	90	75	125				
Silver	313	1.0	336.8	0.5906	93	75	125				
Uranium	655	1.0	673.6	1.811	97	75	125				
Vanadium	675	1.0	673.6	42.57	94	75	125				

Associated samples: **H15120093-020A, H15120093-023A, H15120093-026A, H15120093-029A, H15120093-032A, H15120093-035A, H15120093-038A, H15120093-041A, H15120093-044A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31477

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151217A: 81** SampType: **Sample Matrix Spike** Lab ID: **H15120093-044AMS** Method: **SW6020**

Analysis Date: **12/17/15 21:02** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	43.8	1.0	61.71	0.2997	70	75	125				S
Arsenic	79.7	1.0	61.71	18.9	99	75	125				
Barium	210	1.0	61.71	128.6	133	75	125				S
Boron	64.8	2.7	61.71	0	105	75	125				
Cadmium	32.9	1.0	30.86	1.256	103	75	125				
Chromium	74.5	1.0	61.71	12.69	100	75	125				
Cobalt	65.6	1.0	61.71	4.437	99	75	125				
Lead	107	1.0	61.71	41.59	106	75	125				
Molybdenum	61.7	1.0	61.71	0.8689	99	75	125				
Selenium	60.7	1.0	61.71	0.2766	98	75	125				
Silver	33.5	1.0	30.86	0.5906	107	75	125				
Uranium	68.4	1.0	61.71	1.811	108	75	125				
Vanadium	104	1.0	61.71	42.57	99	75	125				

Associated samples: **H15120093-020A, H15120093-023A, H15120093-026A, H15120093-029A, H15120093-032A, H15120093-035A, H15120093-038A, H15120093-041A, H15120093-044A**

Run ID :Run Order: **ICPMS204-B_151217A: 82** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-044AMSD** Method: **SW6020**

Analysis Date: **12/17/15 21:05** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	41.7	1.0	61.12	0.2997	68	75	125	43.78	4.9	20	S
Arsenic	81.9	1.0	61.12	18.9	103	75	125	79.73	2.6	20	
Barium	218	1.0	61.12	128.6	147	75	125	210.4	3.7	20	S
Boron	59.7	2.6	61.12	0	98	75	125	64.8	8.2	20	
Cadmium	33.1	1.0	30.56	1.256	104	75	125	32.94	0.3	20	
Chromium	75.0	1.0	61.12	12.69	102	75	125	74.48	0.6	20	
Cobalt	66.4	1.0	61.12	4.437	101	75	125	65.6	1.2	20	
Lead	111	1.0	61.12	41.59	114	75	125	107.1	3.7	20	
Molybdenum	60.8	1.0	61.12	0.8689	98	75	125	61.66	1.3	20	
Selenium	62.0	1.0	61.12	0.2766	101	75	125	60.7	2.1	20	
Silver	32.6	1.0	30.56	0.5906	105	75	125	33.5	2.7	20	
Uranium	65.6	1.0	61.12	1.811	104	75	125	68.38	4.2	20	
Vanadium	106	1.0	61.12	42.57	104	75	125	103.7	2.4	20	

Associated samples: **H15120093-020A, H15120093-023A, H15120093-026A, H15120093-029A, H15120093-032A, H15120093-035A, H15120093-038A, H15120093-041A, H15120093-044A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31478

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151217A: 93** SampType: **Method Blank** Lab ID: **MB-31478** Method: **SW6010B**
Analysis Date: **12/17/15 17:58** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.7									
Barium	0.3	0.02									
Beryllium	ND	0.009									
Copper	0.4	0.2									
Iron	2	0.6									
Manganese	0.06	0.02									
Nickel	ND	0.07									

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

Run ID :Run Order: **ICP2-HE_151217A: 94** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-31478** Method: **SW6010B**
Analysis Date: **12/17/15 18:02** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	263	5.0	245	0	**107**	80	120				
Barium	52.5	1.0	49	0.2687	**107**	80	120				
Beryllium	26.3	1.0	24.5	0	**107**	80	120				
Copper	51.6	1.0	49	0.4283	**104**	80	120				
Iron	256	5.0	245	2.497	**104**	80	120				
Manganese	256	1.0	245	0.05586	**104**	80	120				
Nickel	51.2	1.0	49	0	**104**	80	120				

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

Run ID :Run Order: **ICP2-HE_151217A: 95** SampType: **Laboratory Control Sample** Lab ID: **LCS-31478** Method: **SW6010B**
Analysis Date: **12/17/15 18:06** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	10100	5.0	9830	0	**103**	46.3	130.2				
Barium	177	1.0	187	0.2687	**95**	78.6	112.8				
Beryllium	84.6	1.0	83.6	0	**101**	76.2	108				
Copper	128	1.0	137	0.4283	**93**	76.6	108.8				
Iron	16500	5.0	16300	2.497	**101**	51.7	131.9				
Manganese	437	1.0	434	0.05586	**101**	81.1	116.6				
Nickel	82.5	1.0	86.2	0	**96**	72.3	105				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31478

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151217A: 95** SampType: **Laboratory Control Sample** Lab ID: **LCS-31478** Method: **SW6010B**
Analysis Date: **12/17/15 18:06** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

Run ID :Run Order: **ICP2-HE_151217A: 112** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15120093-045APDS** Method: **SW6010B**
Analysis Date: **12/17/15 19:09** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5420	5.0	1437	3957	102	75	125				
Barium	340	1.0	287.4	59.44	98	75	125				
Beryllium	141	1.0	143.7	0.1869	98	75	125				
Copper	407	1.3	287.4	129.1	97	75	125				
Iron	10500	5.0	1437	9352		75	125				A
Manganese	1890	1.0	1437	505.7	96	75	125				
Nickel	285	1.0	287.4	3.354	98	75	125				

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

Run ID :Run Order: **ICP2-HE_151217A: 113** SampType: **Sample Matrix Spike** Lab ID: **H15120093-045AMS** Method: **SW6010B**
Analysis Date: **12/17/15 19:13** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5470	5.0	283.5	3957		75	125				A
Barium	142	1.0	56.71	59.44	145	75	125				S
Beryllium	30.5	1.0	28.35	0.1869	107	75	125				
Copper	142	1.2	56.71	129.1	23	75	125				S
Iron	11700	5.0	283.5	9352		75	125				A
Manganese	957	1.0	283.5	505.7	159	75	125				S
Nickel	64.1	1.0	56.71	3.354	107	75	125				

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

- S= Spike recovery outside of QC advisory limits. The recovery in he Laboratory Control Sample was within QC advisory limits. This suggests that the Matrix Spike recover is due to matrix interference.

Run ID :Run Order: **ICP2-HE_151217A: 114** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-045AMSD** Method: **SW6010B**
Analysis Date: **12/17/15 19:17** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4370	5.0	301.1	3957		75	125	5473	22	20	AR

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31478

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151217A: 114** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-045AMSD** Method: **SW6010B**

Analysis Date: **12/17/15 19:17** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Barium	123	1.0	60.22	59.44	105	75	125	141.6	14	20	
Beryllium	33.2	1.0	30.11	0.1869	110	75	125	30.47	8.5	20	
Copper	120	1.3	60.22	129.1	-16	75	125	142	17	20	S
Iron	8880	5.0	301.1	9352		75	125	11660	27	20	AR
Manganese	811	1.0	301.1	505.7	102	75	125	956.8	16	20	
Nickel	65.8	1.0	60.22	3.354	104	75	125	64.1	2.7	20	

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

- S= Spike recovery outside of QC advisory limits. The recovery in he Laboratory Control Sample was within QC advisory limits. This suggests that the Matrix Spike recover is due to matrix interference.

Run ID :Run Order: **ICP2-HE_151218D: 72** SampType: **Sample Matrix Spike** Lab ID: **H15120093-045AMS** Method: **SW6010B**

Analysis Date: **12/18/15 17:56** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	5410	5.0	283.5	3827		75	125				A
Barium	142	1.0	56.71	57.46	148	75	125				S
Beryllium	29.8	1.0	28.35	0.1819	104	75	125				
Copper	141	1.2	56.71	123.7	31	75	125				S
Iron	11500	5.0	283.5	9020		75	125				A
Manganese	934	1.0	283.5	482.4	159	75	125				S
Nickel	59.7	1.0	56.71	3.376	99	75	125				

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

Run ID :Run Order: **ICP2-HE_151218D: 73** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-045AMSD** Method: **SW6010B**

Analysis Date: **12/18/15 17:59** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	4240	5.0	301.1	3827		75	125	5408	24	20	AR
Barium	120	1.0	60.22	57.46	104	75	125	141.6	16	20	
Beryllium	31.2	1.0	30.11	0.1819	103	75	125	29.77	4.6	20	
Copper	116	1.3	60.22	123.7	-12	75	125	141.5	20	20	S
Iron	8360	5.0	301.1	9020		75	125	11540	32	20	AR
Manganese	754	1.0	301.1	482.4	90	75	125	933.6	21	20	R
Nickel	63.2	1.0	60.22	3.376	99	75	125	59.73	5.6	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31478

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151218D: 73** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-045AMSD** Method: **SW6010B**

Analysis Date: **12/18/15 17:59** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31478

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151217A: 86** SampType: **Method Blank** Lab ID: **MB-31478** Method: **SW6020**

Analysis Date: **12/17/15 21:18** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.08	0.08									
Arsenic	0.1	0.05									
Boron	ND	2									
Cadmium	ND	0.2									
Chromium	0.2	0.04									
Cobalt	0.10	0.04									
Lead	0.2	0.1									
Molybdenum	ND	0.10									
Selenium	ND	0.2									
Silver	ND	0.06									
Uranium	0.10	0.06									
Vanadium	ND	0.4									
Zinc	ND	10									

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

Run ID :Run Order: **ICPMS204-B_151217A: 87** SampType: **Laboratory Control Sample** Lab ID: **LCS-31478** Method: **SW6020**

Analysis Date: **12/17/15 21:21** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	61.8	1.0	240	0.08209	**26**	0	92.9				
Arsenic	173	1.0	196	0.1297	**88**	71.4	105.1				
Boron	107	2.0	129	0	**83**	59.5	106.2				
Cadmium	98.3	1.0	99	0	**99**	73.9	106.1				
Chromium	110	1.0	117	0.2021	**94**	73.5	108.5				
Cobalt	108	1.0	108	0.09778	**100**	74.2	105.6				
Lead	102	1.0	105	0.1523	**97**	74.4	108.6				
Molybdenum	115	1.0	127	0	**90**	66.5	103.1				
Selenium	199	1.0	205	0	**97**	71.2	110.2				
Silver	42.6	1.0	42.1	0	**101**	70.8	111.9				
Uranium	96.4	1.0	99.9	0.0998	**96**	80.1	120.1				
Vanadium	108	1.0	114	0	**95**	67	107				
Zinc	247	11	231	0	**107**	75.3	111.7				

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31478

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151217A: 88** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-31478** Method: **SW6020**

Analysis Date: **12/17/15 21:24** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	51.2	1.0	49	0.08209	104	80	120				
Arsenic	50.4	1.0	49	0.1297	103	80	120				
Boron	47.9	2.1	49	0	98	80	120				
Cadmium	25.6	1.0	24.5	0	104	80	120				
Chromium	48.3	1.0	49	0.2021	98	80	120				
Cobalt	49.3	1.0	49	0.09778	100	80	120				
Lead	49.6	1.0	49	0.1523	101	80	120				
Molybdenum	48.4	1.0	49	0	99	80	120				
Selenium	50.0	1.0	49	0	102	80	120				
Silver	25.1	1.0	24.5	0	102	80	120				
Uranium	49.6	1.0	49	0.0998	101	80	120				
Vanadium	47.5	1.0	49	0	97	80	120				
Zinc	49.9	11	49	0	102	80	120				

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

Run ID :Run Order: **ICPMS204-B_151217A: 105** SampType: **Post Digestion/Distillation Spike** Lab ID: **H15120093-045APDS** Method: **SW6020**

Analysis Date: **12/17/15 22:18** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method:

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	562	1.0	558	0.4866	101	75	125				
Arsenic	557	1.0	558	35.25	94	75	125				
Boron	495	2.4	558	0	89	75	125				
Cadmium	270	1.0	279	0.4893	97	75	125				
Chromium	526	1.0	558	5.686	93	75	125				
Cobalt	522	1.0	558	2.382	93	75	125				
Lead	557	1.0	558	37.94	93	75	125				
Molybdenum	534	1.0	558	0.6958	96	75	125				
Selenium	513	1.0	558	0	92	75	125				
Silver	200	1.0	279	0.276	72	75	125				S
Uranium	541	1.0	558	1.34	97	75	125				
Vanadium	539	1.0	558	16.32	94	75	125				
Zinc	657	13	558	177.2	86	75	125				

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31478

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151217A: 106** SampType: **Sample Matrix Spike** Lab ID: **H15120093-045AMS** Method: **SW6020**

Analysis Date: **12/17/15 22:21** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	47.5	1.0	56.71	0.4866	83	75	125				
Arsenic	79.4	1.0	56.71	35.25	78	75	125				
Boron	58.7	2.4	56.71	0	103	75	125				
Cadmium	30.3	1.0	28.35	0.4893	105	75	125				
Chromium	63.8	1.0	56.71	5.686	103	75	125				
Cobalt	60.3	1.0	56.71	2.382	102	75	125				
Lead	82.3	1.0	56.71	37.94	78	75	125				
Molybdenum	57.3	1.0	56.71	0.6958	100	75	125				
Selenium	58.4	1.0	56.71	0	103	75	125				
Silver	29.8	1.0	28.35	0.276	104	75	125				
Uranium	60.6	1.0	56.71	1.34	104	75	125				
Vanadium	75.2	1.0	56.71	16.32	104	75	125				
Zinc	374	13	56.71	177.2	348	75	125				S

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

Run ID :Run Order: **ICPMS204-B_151217A: 107** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-045AMSD** Method: **SW6020**

Analysis Date: **12/17/15 22:24** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	52.9	1.0	60.22	0.4866	87	75	125	47.45	11	20	
Arsenic	73.7	1.0	60.22	35.25	64	75	125	79.36	7.5	20	S
Boron	60.6	2.6	60.22	0	101	75	125	58.69	3.2	20	
Cadmium	32.7	1.0	30.11	0.4893	107	75	125	30.31	7.5	20	
Chromium	65.4	1.0	60.22	5.686	99	75	125	63.84	2.4	20	
Cobalt	62.7	1.0	60.22	2.382	100	75	125	60.27	3.9	20	
Lead	79.3	1.0	60.22	37.94	69	75	125	82.31	3.7	20	S
Molybdenum	60.9	1.0	60.22	0.6958	100	75	125	57.33	6.1	20	
Selenium	60.9	1.0	60.22	0	101	75	125	58.4	4.3	20	
Silver	31.6	1.0	30.11	0.276	104	75	125	29.78	6.1	20	
Uranium	64.0	1.0	60.22	1.34	104	75	125	60.56	5.6	20	
Vanadium	76.6	1.0	60.22	16.32	100	75	125	75.23	1.7	20	
Zinc	215	14	60.22	177.2	63	75	125	374.4	54	20	SR

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

Qualifiers:
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S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31478

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151218A: 16** SampType: **Method Blank** Lab ID: **MB-31478** Method: **SW6020**

Analysis Date: **12/18/15 15:07** Units: **mg/kg** **Prep Info:** Prep Date: **12/15/2015** Prep Method: **SW3050 B**

Analytes 13	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.08									
Arsenic	0.07	0.05									
Boron	ND	2									
Cadmium	ND	0.2									
Chromium	0.1	0.04									
Cobalt	ND	0.04									
Lead	ND	0.1									
Molybdenum	ND	0.10									
Selenium	ND	0.2									
Silver	ND	0.06									
Uranium	ND	0.06									
Vanadium	ND	0.4									
Zinc	ND	10									

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

Qualifiers:
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J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31488

Date: *29-Dec-15*

Run ID :Run Order: **HGCV201-H_151216A: 10** SampType: **Method Blank** Lab ID: **MB-31488** Method: **SW7471B**
Analysis Date: **12/16/15 12:34** Units: **mg/kg** **Prep Info:** Prep Date: **12/16/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	0.010									

Associated samples: **H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Run ID :Run Order: **HGCV201-H_151216A: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-31488** Method: **SW7471B**
Analysis Date: **12/16/15 12:36** Units: **mg/kg** **Prep Info:** Prep Date: **12/16/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	6.1	0.50	5	0	**121**	71	126.4				

Associated samples: **H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Run ID :Run Order: **HGCV201-H_151216A: 15** SampType: **Sample Matrix Spike** Lab ID: **H15120093-031AMS** Method: **SW7471B**
Analysis Date: **12/16/15 12:44** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/16/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	5.1	0.50	3.525	1.026	**115**	80	120				

Associated samples: **H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Run ID :Run Order: **HGCV201-H_151216A: 16** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-031AMSD** Method: **SW7471B**
Analysis Date: **12/16/15 13:01** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/16/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	4.4	0.50	3.525	1.026	**97**	80	120	5.091	**14**	20	

Associated samples: **H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Run ID :Run Order: **HGCV201-H_151216A: 17** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-31488** Method: **SW7471B**
Analysis Date: **12/16/15 13:03** Units: **mg/kg** **Prep Info:** Prep Date: **12/16/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1.1	0.50	1	0	**105**	80	120				

Qualifiers:
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N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31488

Date: *29-Dec-15*

Run ID :Run Order: **HGCV201-H_151216A: 17** SampType: **Laboratory Fortified Blank** Lab ID: **LFB-31488** Method: **SW7471B**

Analysis Date: **12/16/15 13:03** Units: **mg/kg** **Prep Info:** Prep Date: **12/16/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Run ID :Run Order: **HGCV201-H_151216A: 25** SampType: **Sample Matrix Spike** Lab ID: **H15120093-035AMS** Method: **SW7471B**

Analysis Date: **12/16/15 13:19** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/16/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	3.0	0.50	2.528	0.3151	**105**	80	120				

Associated samples: **H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Run ID :Run Order: **HGCV201-H_151216A: 26** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-035AMSD** Method: **SW7471B**

Analysis Date: **12/16/15 13:21** Units: **mg/kg-dry** **Prep Info:** Prep Date: **12/16/2015** Prep Method: **SW7471B**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	3.0	0.50	2.528	0.3151	**106**	80	120	2.958	**0.8**	20	

Associated samples: **H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Qualifiers:
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31579

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151229A: 11** SampType: **Laboratory Control Sample** Lab ID: **LCS-31579** Method: **A4500 N-C**
Analysis Date: **12/28/15 14:15** Units: **mg/L** **Prep Info:** Prep Date: **12/28/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	6.34	0.15	6.37	0	100	90	110				

Associated samples: **H15120093-007A, H15120093-008A, H15120093-009A, H15120093-011A, H15120093-013A, H15120093-015A, H15120093-016A**

Run ID :Run Order: **FIA203-HE_151229A: 12** SampType: **Method Blank** Lab ID: **MB-31579** Method: **A4500 N-C**
Analysis Date: **12/28/15 14:16** Units: **mg/L** **Prep Info:** Prep Date: **12/28/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	ND	0.005									

Associated samples: **H15120093-007A, H15120093-008A, H15120093-009A, H15120093-011A, H15120093-013A, H15120093-015A, H15120093-016A**

Run ID :Run Order: **FIA203-HE_151229A: 14** SampType: **Sample Matrix Spike** Lab ID: **H15120400-001Ams** Method: **A4500 N-C**
Analysis Date: **12/28/15 14:19** Units: **mg/L** **Prep Info:** Prep Date: **12/28/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	1.13	0.10	1	0.1505	98	90	110				

Associated samples: **H15120093-007A, H15120093-008A, H15120093-009A, H15120093-011A, H15120093-013A, H15120093-015A, H15120093-016A**

Run ID :Run Order: **FIA203-HE_151229A: 15** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120400-001Amsd** Method: **A4500 N-C**
Analysis Date: **12/28/15 14:20** Units: **mg/L** **Prep Info:** Prep Date: **12/28/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	1.08	0.10	1	0.1505	93	90	110	1.132	4.3	20	

Associated samples: **H15120093-007A, H15120093-008A, H15120093-009A, H15120093-011A, H15120093-013A, H15120093-015A, H15120093-016A**

Run ID :Run Order: **FIA203-HE_151229A: 28** SampType: **Sample Duplicate** Lab ID: **H15120093-015ADUP** Method: **A4500 N-C**
Analysis Date: **12/28/15 14:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	3.41	0.10		0				3.408	0.0	20	

Associated samples: **H15120093-007A, H15120093-008A, H15120093-009A, H15120093-011A, H15120093-013A, H15120093-015A, H15120093-016A**

Qualifiers:
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R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: 31579

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151229A: 42** SampType: **Sample Matrix Spike** Lab ID: **H15120093-008AMS** Method: **A4500 N-C**

Analysis Date: **12/28/15 14:54** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	6.28	0.12	2	4.744	77	90	110				S

Associated samples: **H15120093-007A, H15120093-008A, H15120093-009A, H15120093-011A, H15120093-013A, H15120093-015A, H15120093-016A**

Run ID :Run Order: **FIA203-HE_151229A: 43** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-008AMSD** Method: **A4500 N-C**

Analysis Date: **12/28/15 14:55** Units: **mg/L** **Prep Info:** Prep Date: **12/8/2015** Prep Method: **A4500 N-C**

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	6.24	0.12	2	4.744	75	90	110	6.276	0.6	20	S

Associated samples: **H15120093-007A, H15120093-008A, H15120093-009A, H15120093-011A, H15120093-013A, H15120093-015A, H15120093-016A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: B_151210Z

Date: *29-Dec-15*

Run ID :Run Order: **SUB-B253629: 1** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **12/10/15 15:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000188	1.0E-05	0.0002	0	94	90	110	0			

Associated samples: **H15120093-002C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: B_151211Z

Date: *29-Dec-15*

Run ID :Run Order: **SUB-B253692: 1** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **12/11/15 14:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000205	1.0E-05	0.0002	0	**103**	90	110	0			

Associated samples: **H15120093-001B, H15120093-001C, H15120093-002B, H15120093-003B, H15120093-003C, H15120093-004B, H15120093-004C, H15120093-005B, H15120093-005C, H15120093-006B, H15120093-006C, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-013C, H15120093-014B, H15120093-014C, H15120093-015B, H15120093-016B, H15120093-017B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: B_151214Z

Date: *29-Dec-15*

Run ID :Run Order: **SUB-B253763: 1** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E245.1**

Analysis Date: **12/14/15 15:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000202	1.0E-05	0.0002	0	**101**	90	110	0			

Associated samples: **H15120093-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: B_95480

Date: *29-Dec-15*

Run ID :Run Order: **SUB-B253692: 7** SampType: **Method Blank** Lab ID: **MB-95480** Method: **E245.1**
Analysis Date: **12/11/15 14:12** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1E-06	1E-06									

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B**

Run ID :Run Order: **SUB-B253692: 8** SampType: **Laboratory Control Sample** Lab ID: **LCS-95480** Method: **E245.1**
Analysis Date: **12/11/15 14:14** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000209	1.0E-05	0.0002	0.00000132	**104**	85	115	0			

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B**

Run ID :Run Order: **SUB-B253692: 11** SampType: **Sample Matrix Spike** Lab ID: **B15120764-002BMS** Method: **E245.1**
Analysis Date: **12/11/15 14:22** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000206	1.0E-05	0.0002	0.00000165	**102**	70	130	0			

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B**

Run ID :Run Order: **SUB-B253692: 12** SampType: **Sample Matrix Spike Duplicate** Lab ID: **B15120764-002BMSD** Method: **E245.1**
Analysis Date: **12/11/15 14:24** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000206	1.0E-05	0.0002	0.00000165	**102**	70	130	0.000206	**0.0**	30	

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B**

Run ID :Run Order: **SUB-B253692: 33** SampType: **Sample Matrix Spike** Lab ID: **H15120093-017B** Method: **E245.1**
Analysis Date: **12/11/15 15:17** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000206	1.0E-05	0.0002	0.00000274	**102**	70	130	0			

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: B_95480

Date: *29-Dec-15*

Run ID :Run Order: **SUB-B253692: 33** SampType: **Sample Matrix Spike** Lab ID: **H15120093-017B** Method: **E245.1**

Analysis Date: **12/11/15 15:17** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B**

Run ID :Run Order: **SUB-B253692: 34** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-017B** Method: **E245.1**

Analysis Date: **12/11/15 15:20** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000206	1.0E-05	0.0002	0.00000274	**102**	70	130	0.000206	**0.0**	30	

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: B_95481

Date: *29-Dec-15*

Run ID :Run Order: **SUB-B253629: 11** SampType: **Method Blank** Lab ID: **MB-95481** Method: **E245.1**
Analysis Date: **12/10/15 15:16** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1E-06	1E-06									

Associated samples: **H15120093-002C, H15120093-007C, H15120093-008C, H15120093-009C**

Run ID :Run Order: **SUB-B253629: 12** SampType: **Laboratory Control Sample** Lab ID: **LCS-95481** Method: **E245.1**
Analysis Date: **12/10/15 15:18** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000188	1.0E-05	0.0002	0.00000118	93	85	115	0			

Associated samples: **H15120093-002C, H15120093-007C, H15120093-008C, H15120093-009C**

Run ID :Run Order: **SUB-B253629: 18** SampType: **Sample Matrix Spike** Lab ID: **B15120764-001CMS** Method: **E245.1**
Analysis Date: **12/10/15 15:43** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000177	1.0E-05	0.0002	0	89	70	130	0			

Associated samples: **H15120093-002C, H15120093-007C, H15120093-008C, H15120093-009C**

Run ID :Run Order: **SUB-B253629: 19** SampType: **Sample Matrix Spike Duplicate** Lab ID: **B15120764-001CMSD** Method: **E245.1**
Analysis Date: **12/10/15 15:48** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000192	1.0E-05	0.0002	0	96	70	130	0.000177	8.1	30	

Associated samples: **H15120093-002C, H15120093-007C, H15120093-008C, H15120093-009C**

Run ID :Run Order: **SUB-B253629: 35** SampType: **Sample Matrix Spike** Lab ID: **H15120093-009C** Method: **E245.1**
Analysis Date: **12/10/15 16:24** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000203	1.0E-05	0.0002	0.0000124	95	70	130	0			

Associated samples: **H15120093-002C, H15120093-007C, H15120093-008C, H15120093-009C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: B_95481

Date: *29-Dec-15*

Run ID :Run Order: **SUB-B253629: 36** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-009C** Method: **E245.1**

Analysis Date: **12/10/15 16:26** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000205	1.0E-05	0.0002	0.0000124	**96**	70	130	0.000203	**1.0**	30	

Associated samples: **H15120093-002C, H15120093-007C, H15120093-008C, H15120093-009C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: B_95482

Date: *29-Dec-15*

Run ID :Run Order: **SUB-B253629: 2** SampType: **Method Blank** Lab ID: **MB-95482** Method: **E245.1**
Analysis Date: **12/10/15 16:34** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1E-06	1E-06									

Associated samples: **H15120093-010C, H15120093-011C, H15120093-012C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Run ID :Run Order: **SUB-B253629: 3** SampType: **Laboratory Control Sample** Lab ID: **LCS-95482** Method: **E245.1**
Analysis Date: **12/10/15 16:37** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000188	1.0E-05	0.0002	0.0000011	**93**	85	115	0			

Associated samples: **H15120093-010C, H15120093-011C, H15120093-012C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Run ID :Run Order: **SUB-B253629: 9** SampType: **Sample Matrix Spike** Lab ID: **B15120766-024AMS** Method: **E245.1**
Analysis Date: **12/10/15 17:24** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000196	1.0E-05	0.0002	0.00000123	**97**	70	130	0			

Associated samples: **H15120093-010C, H15120093-011C, H15120093-012C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Run ID :Run Order: **SUB-B253629: 10** SampType: **Sample Matrix Spike Duplicate** Lab ID: **B15120766-024AMSD** Method: **E245.1**
Analysis Date: **12/10/15 17:26** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000196	1.0E-05	0.0002	0.00000123	**97**	70	130	0.000196	**0.0**	30	

Associated samples: **H15120093-010C, H15120093-011C, H15120093-012C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Run ID :Run Order: **SUB-B253629: 38** SampType: **Sample Matrix Spike** Lab ID: **H15120093-010C** Method: **E245.1**
Analysis Date: **12/10/15 16:42** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000208	1.0E-05	0.0002	0.0000238	**92**	70	130	0			

Associated samples: **H15120093-010C, H15120093-011C, H15120093-012C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: B_95482

Date: *29-Dec-15*

Run ID :Run Order: **SUB-B253629: 39** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-010C** Method: **E245.1**

Analysis Date: **12/10/15 16:44** Units: **mg/L** **Prep Info:** Prep Date: **12/10/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000209	1.0E-05	0.0002	0.0000238	**93**	70	130	0.000208	**0.5**	30	

Associated samples: **H15120093-010C, H15120093-011C, H15120093-012C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: B_95524

Date: *29-Dec-15*

Run ID :Run Order: **SUB-B253692: 2** SampType: **Method Blank** Lab ID: **MB-95524** Method: **E245.1**
Analysis Date: **12/11/15 15:28** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	1E-06	1E-06									

Associated samples: **H15120093-001C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-013C, H15120093-014C**

Run ID :Run Order: **SUB-B253692: 3** SampType: **Laboratory Control Sample** Lab ID: **LCS-95524** Method: **E245.1**
Analysis Date: **12/11/15 15:32** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000191	1.0E-05	0.0002	0.00000138	**95**	85	115	0			

Associated samples: **H15120093-001C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-013C, H15120093-014C**

Run ID :Run Order: **SUB-B253692: 5** SampType: **Sample Matrix Spike** Lab ID: **H15120093-004C** Method: **E245.1**
Analysis Date: **12/11/15 15:55** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000211	1.0E-05	0.0002	0.0000208	**95**	70	130	0			

Associated samples: **H15120093-001C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-013C, H15120093-014C**

Run ID :Run Order: **SUB-B253692: 6** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-004C** Method: **E245.1**
Analysis Date: **12/11/15 15:57** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000207	1.0E-05	0.0002	0.0000208	**93**	70	130	0.000211	**1.9**	30	

Associated samples: **H15120093-001C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-013C, H15120093-014C**

Run ID :Run Order: **SUB-B253692: 49** SampType: **Sample Matrix Spike** Lab ID: **H15120093-015C** Method: **E245.1**
Analysis Date: **12/11/15 16:33** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000207	1.0E-05	0.0002	0.0000106	**98**	70	130	0			

Associated samples: **H15120093-001C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-013C, H15120093-014C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: B_95524

Date: *29-Dec-15*

Run ID :Run Order: **SUB-B253692: 50** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-015C** Method: **E245.1**

Analysis Date: **12/11/15 16:35** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000280	1.0E-05	0.0002	0.0000106	135	70	130	0.000207	30	30	S

Associated samples: **H15120093-001C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-013C, H15120093-014C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: B_95557

Date: *29-Dec-15*

Run ID :Run Order: **SUB-B253763: 5** SampType: **Method Blank** Lab ID: **MB-95557** Method: **E245.1**
Analysis Date: **12/14/15 16:37** Units: **mg/L** **Prep Info:** Prep Date: **12/14/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	ND	1E-06									

Associated samples: **H15120093-018B**

Run ID :Run Order: **SUB-B253763: 6** SampType: **Laboratory Control Sample** Lab ID: **LCS-95557** Method: **E245.1**
Analysis Date: **12/14/15 16:39** Units: **mg/L** **Prep Info:** Prep Date: **12/14/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000196	1.0E-05	0.0002	0	**98**	85	115	0			

Associated samples: **H15120093-018B**

Run ID :Run Order: **SUB-B253763: 8** SampType: **Sample Matrix Spike** Lab ID: **H15120093-018B** Method: **E245.1**
Analysis Date: **12/14/15 16:44** Units: **mg/L** **Prep Info:** Prep Date: **12/14/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000198	1.0E-05	0.0002	0.00000127	**98**	70	130	0			

Associated samples: **H15120093-018B**

Run ID :Run Order: **SUB-B253763: 9** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-018B** Method: **E245.1**
Analysis Date: **12/14/15 16:47** Units: **mg/L** **Prep Info:** Prep Date: **12/14/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Mercury	0.000211	1.0E-05	0.0002	0.00000127	**105**	70	130	0.000198	**6.4**	30	

Associated samples: **H15120093-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_46431

Date: *29-Dec-15*

Run ID :Run Order: **SUB-C207393: 1** SampType: **Method Blank** Lab ID: **MB-46431** Method: **A5310 C**

Analysis Date: **12/11/15 19:39** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	0.2	0.04									

Associated samples: **H15120093-001E, H15120093-002E, H15120093-003E, H15120093-004E, H15120093-005E, H15120093-006E, H15120093-007E, H15120093-008E, H15120093-009E, H15120093-010E, H15120093-011E, H15120093-012E, H15120093-013E, H15120093-014E, H15120093-015E, H15120093-016E, H15120093-017E, H15120093-018E**

Run ID :Run Order: **SUB-C207393: 2** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-46431** Method: **A5310 C**

Analysis Date: **12/11/15 20:21** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.3	0.50	10	0	**103**	90	110	0			

Associated samples: **H15120093-001E, H15120093-002E, H15120093-003E, H15120093-004E, H15120093-005E, H15120093-006E, H15120093-007E, H15120093-008E, H15120093-009E, H15120093-010E, H15120093-011E, H15120093-012E, H15120093-013E, H15120093-014E, H15120093-015E, H15120093-016E, H15120093-017E, H15120093-018E**

Run ID :Run Order: **SUB-C207393: 4** SampType: **Sample Matrix Spike** Lab ID: **C15120350-001EMS** Method: **A5310 C**

Analysis Date: **12/11/15 20:52** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	7.36	0.50	5	2.24	**102**	85	115	0			

Associated samples: **H15120093-001E, H15120093-002E, H15120093-003E, H15120093-004E, H15120093-005E, H15120093-006E, H15120093-007E, H15120093-008E, H15120093-009E, H15120093-010E, H15120093-011E, H15120093-012E, H15120093-013E, H15120093-014E, H15120093-015E, H15120093-016E, H15120093-017E, H15120093-018E**

Run ID :Run Order: **SUB-C207393: 5** SampType: **Sample Matrix Spike Duplicate** Lab ID: **C15120350-001EMSD** Method: **A5310 C**

Analysis Date: **12/11/15 21:07** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	7.37	0.50	5	2.24	**103**	85	115	7.361	**0.2**	10	

Associated samples: **H15120093-001E, H15120093-002E, H15120093-003E, H15120093-004E, H15120093-005E, H15120093-006E, H15120093-007E, H15120093-008E, H15120093-009E, H15120093-010E, H15120093-011E, H15120093-012E, H15120093-013E, H15120093-014E, H15120093-015E, H15120093-016E, H15120093-017E, H15120093-018E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_46431

Date: *29-Dec-15*

Run ID :Run Order: **SUB-C207393: 8** SampType: **Laboratory Control Sample** Lab ID: **LCS-46431** Method: **A5310 C**

Analysis Date: **12/12/15 03:43** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.7	0.50	10	0.2488	105	90	110	0			

Associated samples: **H15120093-001E, H15120093-002E, H15120093-003E, H15120093-004E, H15120093-005E, H15120093-006E, H15120093-007E, H15120093-008E, H15120093-009E, H15120093-010E, H15120093-011E, H15120093-012E, H15120093-013E, H15120093-014E, H15120093-015E, H15120093-016E, H15120093-017E, H15120093-018E**

Run ID :Run Order: **SUB-C207393: 16** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-46431** Method: **A5310 C**

Analysis Date: **12/11/15 23:50** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.3	0.50	10	0	103	90	110	0			

Associated samples: **H15120093-001E, H15120093-002E, H15120093-003E, H15120093-004E, H15120093-005E, H15120093-006E, H15120093-007E, H15120093-008E, H15120093-009E, H15120093-010E, H15120093-011E, H15120093-012E, H15120093-013E, H15120093-014E, H15120093-015E, H15120093-016E, H15120093-017E, H15120093-018E**

Run ID :Run Order: **SUB-C207393: 18** SampType: **Sample Matrix Spike** Lab ID: **H15120093-008E** Method: **A5310 C**

Analysis Date: **12/12/15 00:46** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	8.70	0.50	5	3.466	105	85	115	0			

Associated samples: **H15120093-001E, H15120093-002E, H15120093-003E, H15120093-004E, H15120093-005E, H15120093-006E, H15120093-007E, H15120093-008E, H15120093-009E, H15120093-010E, H15120093-011E, H15120093-012E, H15120093-013E, H15120093-014E, H15120093-015E, H15120093-016E, H15120093-017E, H15120093-018E**

Run ID :Run Order: **SUB-C207393: 19** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-008E** Method: **A5310 C**

Analysis Date: **12/12/15 01:02** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	8.76	0.50	5	3.466	106	85	115	8.701	0.7	10	

Associated samples: **H15120093-001E, H15120093-002E, H15120093-003E, H15120093-004E, H15120093-005E, H15120093-006E, H15120093-007E, H15120093-008E, H15120093-009E, H15120093-010E, H15120093-011E, H15120093-012E, H15120093-013E, H15120093-014E, H15120093-015E, H15120093-016E, H15120093-017E, H15120093-018E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: C_46431

Date: *29-Dec-15*

Run ID :Run Order: **SUB-C207393: 29** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV1-46431** Method: **A5310 C**

Analysis Date: **12/12/15 03:59** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	10.4	0.50	10	0	**104**	90	110	0			

Associated samples: **H15120093-001E, H15120093-002E, H15120093-003E, H15120093-004E, H15120093-005E, H15120093-006E, H15120093-007E, H15120093-008E, H15120093-009E, H15120093-010E, H15120093-011E, H15120093-012E, H15120093-013E, H15120093-014E, H15120093-015E, H15120093-016E, H15120093-017E, H15120093-018E**

Run ID :Run Order: **SUB-C207393: 31** SampType: **Sample Matrix Spike** Lab ID: **H15120093-018E** Method: **A5310 C**

Analysis Date: **12/12/15 04:54** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	5.40	0.50	5	0.3503	**101**	85	115	0			

Associated samples: **H15120093-001E, H15120093-002E, H15120093-003E, H15120093-004E, H15120093-005E, H15120093-006E, H15120093-007E, H15120093-008E, H15120093-009E, H15120093-010E, H15120093-011E, H15120093-012E, H15120093-013E, H15120093-014E, H15120093-015E, H15120093-016E, H15120093-017E, H15120093-018E**

Run ID :Run Order: **SUB-C207393: 32** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-018E** Method: **A5310 C**

Analysis Date: **12/12/15 05:09** Units: **mg/L** **Prep Info:** Prep Date: **12/11/2015** Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Organic Carbon, Dissolved (DOC)	5.38	0.50	5	0.3503	**100**	85	115	5.398	**0.4**	10	

Associated samples: **H15120093-001E, H15120093-002E, H15120093-003E, H15120093-004E, H15120093-005E, H15120093-006E, H15120093-007E, H15120093-008E, H15120093-009E, H15120093-010E, H15120093-011E, H15120093-012E, H15120093-013E, H15120093-014E, H15120093-015E, H15120093-016E, H15120093-017E, H15120093-018E**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111512

Date: *29-Dec-15*

Run ID :Run Order: **PHSC_101-H_151208A: 6** SampType: **Method Blank** Lab ID: **MB** Method: **A2320 B**

Analysis Date: **12/08/15 08:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	2	0.7									

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **PHSC_101-H_151208A: 8** SampType: **Laboratory Control Sample** Lab ID: **LCS** Method: **A2320 B**

Analysis Date: **12/08/15 09:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	590	4.0	600	1.72	**98**	90	110				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **PHSC_101-H_151208A: 17** SampType: **Sample Duplicate** Lab ID: **H15120093-001ADUP** Method: **A2320 B**

Analysis Date: **12/08/15 09:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	100	4.0		0				104	**0.3**	10	
Bicarbonate as HCO3	130	4.0		0				126.3	**0.3**	10	

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **PHSC_101-H_151208A: 45** SampType: **Sample Duplicate** Lab ID: **H15120093-014ADUP** Method: **A2320 B**

Analysis Date: **12/08/15 11:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	120	4.0		0				117.4	**1.4**	10	
Bicarbonate as HCO3	140	4.0		0				142.6	**1.4**	10	

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111512

Date: *29-Dec-15*

Run ID :Run Order: **PHSC_101-H_151208A: 53** SampType: **Method Blank** Lab ID: **MB** Method: **A2320 B**

Analysis Date: **12/08/15 11:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	2	0.7									

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **PHSC_101-H_151208A: 55** SampType: **Laboratory Control Sample** Lab ID: **LCS** Method: **A2320 B**

Analysis Date: **12/08/15 11:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	600	4.0	600	1.92	99	90	110				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **PHSC_101-H_151208A: 58** SampType: **Sample Duplicate** Lab ID: **H15120093-015ADUP** Method: **A2320 B**

Analysis Date: **12/08/15 11:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
A kalinity, Total as CaCO3	120	4.0		0				116.1	0.9	10	
Bicarbonate as HCO3	140	4.0		0				141	0.9	10	

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111524

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151208A: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **12/08/15 09:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.813	0.10	0.8	0	102	95	105				
Calcium	40.2	1.0	40	0	100	95	105				
Magnesium	39.5	1.0	40	0	99	95	105				
Potassium	39.8	1.0	40	0	100	95	105				
Sodium	40.0	1.0	40	0	100	95	105				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Run ID :Run Order: **ICP2-HE_151208A: 7** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-1** Method: **E200.7**

Analysis Date: **12/08/15 09:26** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.54	0.10	2.5	0	101	95	105				
Calcium	25.3	1.0	25	0	101	95	105				
Magnesium	24.5	1.0	25	0	98	95	105				
Potassium	25.0	1.0	25	0	100	95	105				
Sodium	25.2	1.0	25	0	101	95	105				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Run ID :Run Order: **ICP2-HE_151208A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **12/08/15 09:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	-0.000570	0.10		0		0	0				
Calcium	452	1.0	500	0	90	80	120				
Magnesium	494	1.0	500	0	99	80	120				
Potassium	0.00215	1.0		0		0	0				
Sodium	0.00458	1.0		0		0	0				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111524

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151208A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **12/08/15 09:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.00	0.10	1	0	100	80	120				
Calcium	458	1.0	500	0	92	80	120				
Magnesium	501	1.0	500	0	100	80	120				
Potassium	20.2	1.0	20	0	101	80	120				
Sodium	20.4	1.0	20	0	102	80	120				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Run ID :Run Order: **ICP2-HE_151208A: 13** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.7**

Analysis Date: **12/08/15 09:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	ND	0.003									
Calcium	0.05	0.03									
Magnesium	0.01	0.005									
Potassium	ND	0.07									
Sodium	ND	0.02									

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Run ID :Run Order: **ICP2-HE_151208A: 14** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.7**

Analysis Date: **12/08/15 09:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.00	0.10	1	0	100	85	115				
Calcium	49.0	1.0	50	0.05037	98	85	115				
Magnesium	48.9	1.0	50	0.0117	98	85	115				
Potassium	48.2	1.0	50	0	96	85	115				
Sodium	48.7	1.0	50	0	97	85	115				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111524

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151208A: 39** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **12/08/15 13:36** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.58	0.10	2.5	0	103	90	110				
Calcium	25.3	1.0	25	0	101	90	110				
Magnesium	24.8	1.0	25	0	99	90	110				
Potassium	24.9	1.0	25	0	99	90	110				
Sodium	24.8	1.0	25	0	99	90	110				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Run ID :Run Order: **ICP2-HE_151208A: 51** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **12/08/15 14:21** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.46	0.10	2.5	0	99	90	110				
Calcium	24.8	1.0	25	0	99	90	110				
Magnesium	24.4	1.0	25	0	98	90	110				
Potassium	24.8	1.0	25	0	99	90	110				
Sodium	24.8	1.0	25	0	99	90	110				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Run ID :Run Order: **ICP2-HE_151208A: 55** SampType: **Sample Matrix Spike** Lab ID: **H15120093-008BMS2** Method: **E200.7**

Analysis Date: **12/08/15 14:36** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.06	0.050	1	0.064	99	70	130				
Calcium	111	1.0	50	61.26	100	70	130				
Magnesium	62.7	1.0	50	13.3	99	70	130				
Potassium	56.8	1.0	50	6.586	100	70	130				
Sodium	86.0	1.0	50	35.97	100	70	130				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111524

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151208A: 56** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-008BMSD2** Method: **E200.7**

Analysis Date: **12/08/15 14:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.05	0.050	1	0.064	99	70	130	1.056	0.3	20	
Calcium	111	1.0	50	61.26	99	70	130	111.4	0.5	20	
Magnesium	62.8	1.0	50	13.3	99	70	130	62.7	0.1	20	
Potassium	58.7	1.0	50	6.586	104	70	130	56.79	3.4	20	
Sodium	89.0	1.0	50	35.97	106	70	130	86.02	3.4	20	

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Run ID :Run Order: **ICP2-HE_151208A: 62** SampType: **Sample Matrix Spike** Lab ID: **H15120080-003DMS2** Method: **E200.7**

Analysis Date: **12/08/15 15:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.51	0.050	1	2.716	-121	70	130				S
Calcium	90.1	1.0	50	211.6		70	130				A
Magnesium	131	1.0	50	400.9		70	130				A
Potassium	54.6	1.0	50	20.03	69	70	130				S
Sodium	1380	1.0	50	6636		70	130				A

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Run ID :Run Order: **ICP2-HE_151208A: 63** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **12/08/15 15:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.58	0.10	2.5	0	103	90	110				
Calcium	25.9	1.0	25	0	104	90	110				
Magnesium	25.9	1.0	25	0	104	90	110				
Potassium	25.2	1.0	25	0	101	90	110				
Sodium	25.1	1.0	25	0	100	90	110				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111524

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151208A: 65** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120080-003DMSD2** Method: **E200.7**

Analysis Date: **12/08/15 15:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.49	0.050	1	2.716	-123	70	130	1.508	1.4	20	S
Calcium	87.3	1.0	50	211.6		70	130	90.09	3.1	20	A
Magnesium	127	1.0	50	400.9		70	130	131.1	3.2	20	A
Potassium	55.9	1.0	50	20.03	72	70	130	54.62	2.3	20	
Sodium	1390	1.0	50	6636		70	130	1379	0.9	20	A

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Run ID :Run Order: **ICP2-HE_151208A: 75** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **12/08/15 15:53** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.54	0.10	2.5	0	101	90	110				
Calcium	25.5	1.0	25	0	102	90	110				
Magnesium	25.4	1.0	25	0	102	90	110				
Potassium	25.0	1.0	25	0	100	90	110				
Sodium	24.9	1.0	25	0	99	90	110				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Run ID :Run Order: **ICP2-HE_151208A: 82** SampType: **Sample Matrix Spike** Lab ID: **H15120093-018BMS2** Method: **E200.7**

Analysis Date: **12/08/15 16:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.979	0.050	1	0	98	70	130				
Calcium	50.0	1.0	50	0.06624	100	70	130				
Magnesium	51.1	1.0	50	0	102	70	130				
Potassium	51.1	1.0	50	0	102	70	130				
Sodium	51.0	1.0	50	0	102	70	130				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111524

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151208A: 83** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-018BMSD2** Method: **E200.7**

Analysis Date: **12/08/15 16:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 5	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.05	0.050	1	0	105	70	130	0.9789	6.7	20	
Calcium	51.7	1.0	50	0.06624	103	70	130	49.98	3.4	20	
Magnesium	53.1	1.0	50	0	106	70	130	51.1	3.8	20	
Potassium	51.3	1.0	50	0	103	70	130	51.1	0.4	20	
Sodium	51.3	1.0	50	0	103	70	130	51.02	0.6	20	

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111530

Date: *29-Dec-15*

Run ID :Run Order: **FIA202-HE_151208B: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E365.1**

Analysis Date: **12/08/15 12:13** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.235	0.010	0.25	0	94	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D**

Run ID :Run Order: **FIA202-HE_151208B: 10** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **12/08/15 12:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.0962	0.010	0.1	0	96	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D**

Run ID :Run Order: **FIA202-HE_151208B: 11** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E365.1**

Analysis Date: **12/08/15 12:15** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	-0.00436	0.010		0		0	0				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D**

Run ID :Run Order: **FIA202-HE_151208B: 27** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **12/08/15 12:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.0957	0.010	0.1	0	96	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D**

Run ID :Run Order: **FIA202-HE_151208B: 41** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **12/08/15 12:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.0947	0.010	0.1	0	95	90	110				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111530

Date: *29-Dec-15*

Run ID :Run Order: **FIA202-HE_151208B: 41** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **12/08/15 12:46** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111531

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151208B: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E353.2**

Analysis Date: **12/08/15 09:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.03	0.010	1	0	103	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D, H15120093-018D**

Run ID :Run Order: **FIA203-HE_151208B: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E353.2**

Analysis Date: **12/08/15 09:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	-0.0148	0.010		0		0	0				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D, H15120093-018D**

Run ID :Run Order: **FIA203-HE_151208B: 11** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E353.2**

Analysis Date: **12/08/15 09:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.934	0.011	1	0	93	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D, H15120093-018D**

Run ID :Run Order: **FIA203-HE_151208B: 13** SampType: **Sample Matrix Spike** Lab ID: **H15120091-001BMS** Method: **E353.2**

Analysis Date: **12/08/15 09:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.974	0.011	1	0.01099	96	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D, H15120093-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111531

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151208B: 14** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120091-001BMSD** Method: **E353.2**

Analysis Date: **12/08/15 09:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.940	0.011	1	0.01099	93	90	110	0.9745	3.6	20	

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D, H15120093-018D**

Run ID :Run Order: **FIA203-HE_151208B: 25** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**

Analysis Date: **12/08/15 09:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.492	0.010	0.5	0	98	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D, H15120093-018D**

Run ID :Run Order: **FIA203-HE_151208B: 44** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**

Analysis Date: **12/08/15 09:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.509	0.010	0.5	0	102	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D, H15120093-018D**

Run ID :Run Order: **FIA203-HE_151208B: 55** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E353.2**

Analysis Date: **12/08/15 10:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	1.03	0.010	1	0	103	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D, H15120093-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111531

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151208B: 56** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E353.2**

Analysis Date: **12/08/15 10:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	-0.00965	0.010		0		0	0				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D, H15120093-018D**

Run ID :Run Order: **FIA203-HE_151208B: 57** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E353.2**

Analysis Date: **12/08/15 10:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.934	0.011	1	0	93	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D, H15120093-018D**

Run ID :Run Order: **FIA203-HE_151208B: 59** SampType: **Sample Matrix Spike** Lab ID: **H15120093-007DMS** Method: **E353.2**

Analysis Date: **12/08/15 10:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	3.78	0.022	2	1.836	97	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D, H15120093-018D**

Run ID :Run Order: **FIA203-HE_151208B: 60** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-007DMSD** Method: **E353.2**

Analysis Date: **12/08/15 10:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	3.77	0.022	2	1.836	97	90	110	3.775	0.1	20	

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D, H15120093-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111531

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151208B: 71** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E353.2**

Analysis Date: **12/08/15 10:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	0.492	0.010	0.5	0	**98**	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D, H15120093-018D**

Run ID :Run Order: **FIA203-HE_151208B: 73** SampType: **Sample Matrix Spike** Lab ID: **H15120093-017DMS** Method: **E353.2**

Analysis Date: **12/08/15 10:50** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	3.72	0.022	2	1.778	**97**	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D, H15120093-018D**

Run ID :Run Order: **FIA203-HE_151208B: 74** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-017DMSD** Method: **E353.2**

Analysis Date: **12/08/15 10:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Nitrate+Nitrite as N	3.68	0.022	2	1.778	**95**	90	110	3.716	**1.1**	20	

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D, H15120093-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111543

Date: *29-Dec-15*

Run ID :Run Order: **IC102-H_151208A: 12** SampType: **Method Blank** Lab ID: **ICB** Method: **E300.0**

Analysis Date: **12/08/15 15:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	0.02	0.009									
Sulfate	ND	0.02									

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **IC102-H_151208A: 13** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E300.0**

Analysis Date: **12/08/15 16:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	104	1.0	100	0	104	90	110				
Sulfate	398	1.0	400	0	99	90	110				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **IC102-H_151208A: 14** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E300.0**

Analysis Date: **12/08/15 16:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	48.3	1.0	50	0.02	97	90	110				
Sulfate	184	1.0	200	0	92	90	110				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **IC102-H_151208A: 15** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV120815-1** Method: **E300.0**

Analysis Date: **12/08/15 16:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	104	1.0	100	0	104	90	110				
Sulfate	396	1.0	400	0	99	90	110				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111543

Date: *29-Dec-15*

Run ID :Run Order: **IC102-H_151208A: 28** SampType: **Sample Matrix Spike** Lab ID: **H15120093-007AMS** Method: **E300.0**

Analysis Date: **12/08/15 18:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	81.5	1.0	50	32.33	98	90	110				
Sulfate	274	1.0	200	85.41	94	90	110				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **IC102-H_151208A: 29** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-007AMSD** Method: **E300.0**

Analysis Date: **12/08/15 18:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	84.1	1.0	50	32.33	103	90	110	81.46	3.2	20	
Sulfate	290	1.0	200	85.41	102	90	110	274.2	5.5	20	

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **IC102-H_151208A: 30** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV120815-2** Method: **E300.0**

Analysis Date: **12/08/15 19:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	100	1.0	100	0	100	90	110				
Sulfate	378	1.0	400	0	95	90	110				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **IC102-H_151208A: 43** SampType: **Sample Matrix Spike** Lab ID: **H15120093-017AMS** Method: **E300.0**

Analysis Date: **12/08/15 21:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	84.3	1.0	50	34.61	99	90	110				
Sulfate	279	1.0	200	80.29	99	90	110				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111543

Date: *29-Dec-15*

Run ID :Run Order: **IC102-H_151208A: 44** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-017AMSD** Method: **E300.0**

Analysis Date: **12/08/15 21:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	82.7	1.0	50	34.61	96	90	110	84.34	2.0	20	
Sulfate	269	1.0	200	80.29	94	90	110	279.2	3.8	20	

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **IC102-H_151208A: 45** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV120815-3** Method: **E300.0**

Analysis Date: **12/08/15 21:56** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	101	1.0	100	0	101	90	110				
Sulfate	386	1.0	400	0	96	90	110				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **IC102-H_151208A: 50** SampType: **Sample Matrix Spike** Lab ID: **H15120093-018AMS** Method: **E300.0**

Analysis Date: **12/08/15 22:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	47.3	1.0	50	0	95	90	110				
Sulfate	181	1.0	200	0.146	90	90	110				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **IC102-H_151208A: 51** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-018AMSD** Method: **E300.0**

Analysis Date: **12/08/15 23:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	47.0	1.0	50	0	94	90	110	47.31	0.6	20	
Sulfate	183	1.0	200	0.146	91	90	110	180.6	1.1	20	

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111560

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151209A: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**
Analysis Date: **12/09/15 10:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.525	0.10	0.5	0	105	90	110				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A**

Run ID :Run Order: **FIA203-HE_151209A: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**
Analysis Date: **12/09/15 10:43** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.0227	0.10		0		0	0				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A**

Run ID :Run Order: **FIA203-HE_151209A: 26** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**
Analysis Date: **12/09/15 11:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.497	0.10	0.5	0	99	90	110				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A**

Run ID :Run Order: **FIA203-HE_151209A: 50** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**
Analysis Date: **12/09/15 12:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.496	0.10	0.5	0	99	90	110				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A**

Run ID :Run Order: **FIA203-HE_151209A: 51** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**
Analysis Date: **12/09/15 12:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.0362	0.10		0		0	0				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111563

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151209B: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E350.1**

Analysis Date: **12/09/15 13:57** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	8.98	0.25	9.25	0	97	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D**

Run ID :Run Order: **FIA203-HE_151209B: 8** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E350.1**

Analysis Date: **12/09/15 13:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.907	0.055	1	0	91	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D**

Run ID :Run Order: **FIA203-HE_151209B: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**

Analysis Date: **12/09/15 14:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.484	0.050	0.5	0	97	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D**

Run ID :Run Order: **FIA203-HE_151209B: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E350.1**

Analysis Date: **12/09/15 14:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.0179	0.050		0		0	0				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D**

Run ID :Run Order: **FIA203-HE_151209B: 17** SampType: **Sample Matrix Spike** Lab ID: **H15120093-002DMS** Method: **E350.1**

Analysis Date: **12/09/15 14:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.864	0.055	1	0	86	80	120				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111563

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151209B: 17** SampType: **Sample Matrix Spike** Lab ID: **H15120093-002DMS** Method: **E350.1**
Analysis Date: **12/09/15 14:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D**

Run ID :Run Order: **FIA203-HE_151209B: 18** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-002DMSD** Method: **E350.1**
Analysis Date: **12/09/15 14:10** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.889	0.055	1	0	89	80	120	0.8645	2.8	10	

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D**

Run ID :Run Order: **FIA203-HE_151209B: 23** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**
Analysis Date: **12/09/15 14:16** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.480	0.050	0.5	0	96	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D**

Run ID :Run Order: **FIA203-HE_151209B: 38** SampType: **Sample Matrix Spike** Lab ID: **H15120093-012DMS** Method: **E350.1**
Analysis Date: **12/09/15 14:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	6.72	0.28	5	1.86	97	80	120				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D**

Run ID :Run Order: **FIA203-HE_151209B: 39** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-012DMSD** Method: **E350.1**
Analysis Date: **12/09/15 14:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	6.76	0.28	5	1.86	98	80	120	6.716	0.7	10	

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111563

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151209B: 40** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**

Analysis Date: **12/09/15 14:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.488	0.050	0.5	0	**98**	90	110				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D**

Run ID :Run Order: **FIA203-HE_151209B: 43** SampType: **Sample Matrix Spike** Lab ID: **H15120093-017DMS** Method: **E350.1**

Analysis Date: **12/09/15 14:40** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	1.81	0.055	1	0.8785	**93**	80	120				

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D**

Run ID :Run Order: **FIA203-HE_151209B: 44** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-017DMSD** Method: **E350.1**

Analysis Date: **12/09/15 14:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	1.82	0.055	1	0.8785	**94**	80	120	1.806	**0.7**	10	

Associated samples: **H15120093-001D, H15120093-002D, H15120093-003D, H15120093-004D, H15120093-005D, H15120093-006D, H15120093-007D, H15120093-008D, H15120093-009D, H15120093-010D, H15120093-011D, H15120093-012D, H15120093-013D, H15120093-014D, H15120093-015D, H15120093-016D, H15120093-017D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111608

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151210A: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **12/10/15 12:22** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.824	0.10	0.8	0	103	95	105				
Calcium	41.4	1.0	40	0	104	95	105				
Iron	4.05	0.020	4	0	101	95	105				
Magnesium	41.1	1.0	40	0	103	95	105				
Potassium	38.7	1.0	40	0	97	95	105				
Sodium	38.3	1.0	40	0	96	95	105				

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Run ID :Run Order: **ICP2-HE_151210A: 7** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV-1** Method: **E200.7**

Analysis Date: **12/10/15 12:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.61	0.10	2.5	0	104	95	105				
Calcium	26.3	1.0	25	0	105	95	105				
Iron	2.57	0.020	2.5	0	103	95	105				
Magnesium	25.7	1.0	25	0	103	95	105				
Potassium	24.7	1.0	25	0	99	95	105				
Sodium	24.5	1.0	25	0	98	95	105				

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Run ID :Run Order: **ICP2-HE_151210A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **12/10/15 12:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.00330	0.10		0		0	0				
Calcium	495	1.0	500	0	99	80	120				
Iron	190	0.020	200	0	95	80	120				
Magnesium	550	1.0	500	0	110	80	120				
Potassium	-0.0217	1.0		0		0	0				
Sodium	-0.0164	1.0		0		0	0				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111608

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151210A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **12/10/15 12:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Run ID :Run Order: **ICP2-HE_151210A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **12/10/15 12:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.03	0.10	1	0	103	80	120				
Calcium	485	1.0	500	0	97	80	120				
Iron	187	0.020	200	0	94	80	120				
Magnesium	538	1.0	500	0	108	80	120				
Potassium	19.8	1.0	20	0	99	80	120				
Sodium	19.5	1.0	20	0	98	80	120				

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Run ID :Run Order: **ICP2-HE_151210A: 19** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **12/10/15 13:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.66	0.10	2.5	0	106	90	110				
Calcium	26.4	1.0	25	0	105	90	110				
Iron	2.58	0.020	2.5	0	103	90	110				
Magnesium	25.8	1.0	25	0	103	90	110				
Potassium	24.7	1.0	25	0	99	90	110				
Sodium	24.6	1.0	25	0	98	90	110				

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111608

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151210A: 43** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **12/10/15 14:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.63	0.10	2.5	0	105	90	110				
Calcium	25.8	1.0	25	0	103	90	110				
Iron	2.54	0.020	2.5	0	101	90	110				
Magnesium	25.7	1.0	25	0	103	90	110				
Potassium	24.8	1.0	25	0	99	90	110				
Sodium	24.9	1.0	25	0	99	90	110				

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Run ID :Run Order: **ICP2-HE_151210A: 55** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **12/10/15 15:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.59	0.10	2.5	0	104	90	110				
Calcium	26.4	1.0	25	0	106	90	110				
Iron	2.60	0.020	2.5	0	104	90	110				
Magnesium	26.2	1.0	25	0	105	90	110				
Potassium	25.2	1.0	25	0	101	90	110				
Sodium	25.2	1.0	25	0	101	90	110				

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Run ID :Run Order: **ICP2-HE_151210A: 74** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **12/10/15 16:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.49	0.10	2.5	0	99	90	110				
Calcium	25.7	1.0	25	0	103	90	110				
Iron	2.58	0.020	2.5	0	103	90	110				
Magnesium	25.1	1.0	25	0	101	90	110				
Potassium	26.0	1.0	25	0	104	90	110				
Sodium	26.1	1.0	25	0	104	90	110				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111608

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151210A: 74** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **12/10/15 16:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Run ID :Run Order: **ICP2-HE_151210A: 79** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **12/10/15 16:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.000480	0.10		0		0	0				
Calcium	470	1.0	500	0	94	80	120				
Iron	186	0.020	200	0	93	80	120				
Magnesium	521	1.0	500	0	104	80	120				
Potassium	-0.0163	1.0		0		0	0				
Sodium	-0.00381	1.0		0		0	0				

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Run ID :Run Order: **ICP2-HE_151210A: 80** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **12/10/15 17:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	1.00	0.10	1	0	100	80	120				
Calcium	481	1.0	500	0	96	80	120				
Iron	188	0.020	200	0	94	80	120				
Magnesium	530	1.0	500	0	106	80	120				
Potassium	20.4	1.0	20	0	102	80	120				
Sodium	20.3	1.0	20	0	102	80	120				

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111608

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151210A: 86** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E200.7**

Analysis Date: **12/10/15 17:25** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 6	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	2.55	0.10	2.5	0	**102**	90	110				
Calcium	25.9	1.0	25	0	**104**	90	110				
Iron	2.57	0.020	2.5	0	**103**	90	110				
Magnesium	25.4	1.0	25	0	**102**	90	110				
Potassium	25.4	1.0	25	0	**102**	90	110				
Sodium	25.3	1.0	25	0	**101**	90	110				

Associated samples: **H15120093-001C, H15120093-002C, H15120093-003C, H15120093-004C, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-013C, H15120093-014C, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018C**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111621

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **12/10/15 13:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.289	0.10	0.3	0	96	90	110				
Antimony	0.0603	0.050	0.06	0	101	90	110				
Arsenic	0.0601	0.0050	0.06	0	100	90	110				
Barium	0.0609	0.10	0.06	0	102	90	110				
Beryllium	0.0308	0.0010	0.03	0	103	90	110				
Cadmium	0.0314	0.0010	0.03	0	105	90	110				
Chromium	0.0611	0.010	0.06	0	102	90	110				
Cobalt	0.0613	0.010	0.06	0	102	90	110				
Copper	0.0625	0.010	0.06	0	104	90	110				
Iron	0.316	0.020	0.3	0	105	90	110				
Lead	0.0601	0.010	0.06	0	100	90	110				
Manganese	0.308	0.010	0.3	0	103	90	110				
Molybdenum	0.0581	0.0050	0.06	0	97	90	110				
Nickel	0.0623	0.010	0.06	0	104	90	110				
Selenium	0.0614	0.0050	0.06	0	102	90	110				
Silver	0.0305	0.0050	0.03	0	102	90	110				
Uranium	0.0593	0.0010	0.06	0	99	90	110				
Vanadium	0.0602	0.10	0.06	0	100	90	110				
Zinc	0.0626	0.010	0.06	0	104	90	110				

Associated samples: **H15120093-001B, H15120093-001C, H15120093-002B, H15120093-002C, H15120093-003B, H15120093-003C, H15120093-004B, H15120093-004C, H15120093-005B, H15120093-005C, H15120093-006B, H15120093-006C, H15120093-007B, H15120093-007C, H15120093-008B, H15120093-008C, H15120093-009B, H15120093-009C, H15120093-010B, H15120093-010C, H15120093-011B, H15120093-011C, H15120093-012B, H15120093-012C, H15120093-013B, H15120093-013C, H15120093-014B, H15120093-014C, H15120093-015B, H15120093-015C, H15120093-016B, H15120093-016C, H15120093-017B, H15120093-017C, H15120093-018B, H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151210A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **12/10/15 13:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.6	0.10	40	0	104	70	130				
Antimony	0.000310	0.050		0							
Arsenic	0.000135	0.0050		0							
Barium	0.000266	0.10		0							
Beryllium	7.80E-05	0.0010		0							
Cadmium	0.000757	0.0010		0							

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111621

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **12/10/15 13:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.00120	0.010		0							
Cobalt	0.000172	0.010		0							
Copper	7.10E-05	0.010		0							
Iron	107	0.020	100	0	**107**	70	130				
Lead	0.000396	0.010		0							
Manganese	0.000997	0.010		0							
Molybdenum	0.892	0.0050	0.8	0	**111**	70	130				
Nickel	0.000594	0.010		0							
Selenium	0.000456	0.0050		0							
Silver	0.000210	0.0050		0							
Uranium	0.000327	0.0010		0							
Vanadium	-0.000413	0.10		0							
Zinc	0.00130	0.010		0							

Associated samples: **H15120093-001B, H15120093-001C, H15120093-002B, H15120093-002C, H15120093-003B, H15120093-003C, H15120093-004B, H15120093-004C, H15120093-005B, H15120093-005C, H15120093-006B, H15120093-006C, H15120093-007B, H15120093-007C, H15120093-008B, H15120093-008C, H15120093-009B, H15120093-009C, H15120093-010B, H15120093-010C, H15120093-011B, H15120093-011C, H15120093-012B, H15120093-012C, H15120093-013B, H15120093-013C, H15120093-014B, H15120093-014C, H15120093-015B, H15120093-015C, H15120093-016B, H15120093-016C, H15120093-017B, H15120093-017C, H15120093-018B, H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151210A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **12/10/15 13:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	42.1	0.10	40	0	**105**	70	130				
Antimony	0.000178	0.050		0		0	0				
Arsenic	0.0114	0.0050	0.01	0	**114**	70	130				
Barium	0.000164	0.10		0		0	0				
Beryllium	4.50E-05	0.0010		0		0	0				
Cadmium	0.0116	0.0010	0.01	0	**116**	70	130				
Chromium	0.0233	0.010	0.02	0	**117**	70	130				
Cobalt	0.0223	0.010	0.02	0	**111**	70	130				
Copper	0.0217	0.010	0.02	0	**108**	70	130				
Iron	108	0.020	100	0	**108**	70	130				
Lead	0.000307	0.010		0		0	0				
Manganese	0.0232	0.010	0.02	0	**116**	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111621

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **12/10/15 13:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	0.901	0.0050	0.8	0	**113**	70	130				
Nickel	0.0226	0.010	0.02	0	**113**	70	130				
Selenium	0.0118	0.0050	0.01	0	**118**	70	130				
Silver	0.0214	0.0050	0.02	0	**107**	70	130				
Uranium	9.20E-05	0.0010		0		0	0				
Vanadium	0.0219	0.10	0.02	0	**109**	70	130				
Zinc	0.0117	0.010	0.01	0	**117**	70	130				

Associated samples: **H15120093-001B, H15120093-001C, H15120093-002B, H15120093-002C, H15120093-003B, H15120093-003C, H15120093-004B, H15120093-004C, H15120093-005B, H15120093-005C, H15120093-006B, H15120093-006C, H15120093-007B, H15120093-007C, H15120093-008B, H15120093-008C, H15120093-009B, H15120093-009C, H15120093-010B, H15120093-010C, H15120093-011B, H15120093-011C, H15120093-012B, H15120093-012C, H15120093-013B, H15120093-013C, H15120093-014B, H15120093-014C, H15120093-015B, H15120093-015C, H15120093-016B, H15120093-016C, H15120093-017B, H15120093-017C, H15120093-018B, H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151210A: 21** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **12/10/15 14:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.004	0.0008									
Antimony	ND	4E-05									
Arsenic	ND	6E-05									
Barium	0.0007	8E-05									
Beryllium	ND	0.0002									
Cadmium	2E-05	2E-05									
Chromium	ND	3E-05									
Cobalt	ND	3E-05									
Copper	0.0002	6E-05									
Iron	0.006	0.0006									
Lead	8E-05	3E-05									
Manganese	0.0003	4E-05									
Molybdenum	4E-05	3E-05									
Nickel	ND	3E-05									
Selenium	ND	0.0002									
Silver	ND	3E-05									
Uranium	2E-05	1.0E-05									
Vanadium	0.0004	3E-05									

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111621

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 21** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **12/10/15 14:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	0.002	0.0001									

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Run ID :Run Order: **ICPMS204-B_151210A: 22** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**

Analysis Date: **12/10/15 14:44** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0553	0.10	0.05	0.003547	**103**	85	115				
Antimony	0.0480	0.050	0.05	0	**96**	85	115				
Arsenic	0.0518	0.0050	0.05	0	**104**	85	115				
Barium	0.0506	0.10	0.05	0.0006544	**100**	85	115				
Beryllium	0.0499	0.0010	0.05	0	**100**	85	115				
Cadmium	0.0520	0.0010	0.05	0.0000224	**104**	85	115				
Chromium	0.0509	0.010	0.05	0	**102**	85	115				
Cobalt	0.0515	0.010	0.05	0	**103**	85	115				
Copper	0.0521	0.010	0.05	0.0001568	**104**	85	115				
Iron	0.162	0.020	0.15	0.006414	**104**	85	115				
Lead	0.0507	0.010	0.05	0.0000829	**101**	85	115				
Manganese	0.0520	0.010	0.05	0.0002935	**103**	85	115				
Molybdenum	0.0486	0.0050	0.05	0.0000425	**97**	85	115				
Nickel	0.0519	0.010	0.05	0	**104**	85	115				
Selenium	0.0550	0.0050	0.05	0	**110**	85	115				
Silver	0.0203	0.0050	0.02	0	**102**	85	115				
Uranium	0.0470	0.0010	0.05	0.0000183	**94**	85	115				
Vanadium	0.0505	0.10	0.05	0.0004188	**100**	85	115				
Zinc	0.0554	0.010	0.05	0.001992	**107**	85	115				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111621

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 72** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **12/10/15 17:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.286	0.10	0.3	0	95	90	110				
Antimony	0.0596	0.050	0.06	0	99	90	110				
Arsenic	0.0604	0.0050	0.06	0	101	90	110				
Barium	0.0595	0.10	0.06	0	99	90	110				
Beryllium	0.0307	0.0010	0.03	0	102	90	110				
Cadmium	0.0311	0.0010	0.03	0	104	90	110				
Chromium	0.0608	0.010	0.06	0	101	90	110				
Cobalt	0.0615	0.010	0.06	0	102	90	110				
Copper	0.0631	0.010	0.06	0	105	90	110				
Iron	0.313	0.020	0.3	0	104	90	110				
Lead	0.0598	0.010	0.06	0	100	90	110				
Manganese	0.308	0.010	0.3	0	103	90	110				
Molybdenum	0.0576	0.0050	0.06	0	96	90	110				
Nickel	0.0626	0.010	0.06	0	104	90	110				
Selenium	0.0609	0.0050	0.06	0	102	90	110				
Silver	0.0305	0.0050	0.03	0	102	90	110				
Uranium	0.0590	0.0010	0.06	0	98	90	110				
Vanadium	0.0597	0.10	0.06	0	100	90	110				
Zinc	0.0624	0.010	0.06	0	104	90	110				

Associated samples: **H15120093-001B, H15120093-001C, H15120093-002B, H15120093-002C, H15120093-003B, H15120093-003C, H15120093-004B, H15120093-004C, H15120093-005B, H15120093-005C, H15120093-006B, H15120093-006C, H15120093-007B, H15120093-007C, H15120093-008B, H15120093-008C, H15120093-009B, H15120093-009C, H15120093-010B, H15120093-010C, H15120093-011B, H15120093-011C, H15120093-012B, H15120093-012C, H15120093-013B, H15120093-013C, H15120093-014B, H15120093-014C, H15120093-015B, H15120093-015C, H15120093-016B, H15120093-016C, H15120093-017B, H15120093-017C, H15120093-018B, H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151210A: 73** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **12/10/15 17:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.6	0.10	40	0	104	70	130				
Antimony	0.000322	0.050		0							
Arsenic	1.80E-05	0.0050		0							
Barium	0.000224	0.10		0							
Beryllium	0.000124	0.0010		0							
Cadmium	0.000711	0.0010		0							

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111621

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 73** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **12/10/15 17:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chromium	0.00115	0.010		0							
Cobalt	0.000161	0.010		0							
Copper	0.000234	0.010		0							
Iron	109	0.020	100	0	**109**	70	130				
Lead	0.000383	0.010		0							
Manganese	0.000905	0.010		0							
Molybdenum	0.896	0.0050	0.8	0	**112**	70	130				
Nickel	0.000802	0.010		0							
Selenium	0.000230	0.0050		0							
Silver	0.000156	0.0050		0							
Uranium	0.000303	0.0010		0							
Vanadium	-0.00170	0.10		0							
Zinc	0.00142	0.010		0							

Associated samples: **H15120093-001B, H15120093-001C, H15120093-002B, H15120093-002C, H15120093-003B, H15120093-003C, H15120093-004B, H15120093-004C, H15120093-005B, H15120093-005C, H15120093-006B, H15120093-006C, H15120093-007B, H15120093-007C, H15120093-008B, H15120093-008C, H15120093-009B, H15120093-009C, H15120093-010B, H15120093-010C, H15120093-011B, H15120093-011C, H15120093-012B, H15120093-012C, H15120093-013B, H15120093-013C, H15120093-014B, H15120093-014C, H15120093-015B, H15120093-015C, H15120093-016B, H15120093-016C, H15120093-017B, H15120093-017C, H15120093-018B, H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151210A: 74** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **12/10/15 17:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	42.2	0.10	40	0	**106**	70	130				
Antimony	0.000145	0.050		0		0	0				
Arsenic	0.0111	0.0050	0.01	0	**111**	70	130				
Barium	0.000161	0.10		0		0	0				
Beryllium	3.00E-05	0.0010		0		0	0				
Cadmium	0.0114	0.0010	0.01	0	**114**	70	130				
Chromium	0.0230	0.010	0.02	0	**115**	70	130				
Cobalt	0.0222	0.010	0.02	0	**111**	70	130				
Copper	0.0218	0.010	0.02	0	**109**	70	130				
Iron	108	0.020	100	0	**107**	70	130				
Lead	0.000312	0.010		0		0	0				
Manganese	0.0226	0.010	0.02	0	**113**	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111621

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 74** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **12/10/15 17:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Molybdenum	0.896	0.0050	0.8	0	112	70	130				
Nickel	0.0228	0.010	0.02	0	114	70	130				
Selenium	0.0110	0.0050	0.01	0	110	70	130				
Silver	0.0206	0.0050	0.02	0	103	70	130				
Uranium	0.000108	0.0010		0		0	0				
Vanadium	0.0208	0.10	0.02	0	104	70	130				
Zinc	0.0117	0.010	0.01	0	117	70	130				

Associated samples: **H15120093-001B, H15120093-001C, H15120093-002B, H15120093-002C, H15120093-003B, H15120093-003C, H15120093-004B, H15120093-004C, H15120093-005B, H15120093-005C, H15120093-006B, H15120093-006C, H15120093-007B, H15120093-007C, H15120093-008B, H15120093-008C, H15120093-009B, H15120093-009C, H15120093-010B, H15120093-010C, H15120093-011B, H15120093-011C, H15120093-012B, H15120093-012C, H15120093-013B, H15120093-013C, H15120093-014B, H15120093-014C, H15120093-015B, H15120093-015C, H15120093-016B, H15120093-016C, H15120093-017B, H15120093-017C, H15120093-018B, H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151210A: 97** SampType: **Sample Matrix Spike** Lab ID: **H15120093-008BMS** Method: **E200.8**

Analysis Date: **12/10/15 18:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0517	0.030	0.05	0.007585	88	70	130				
Antimony	0.0480	0.0010	0.05	0.0002536	95	70	130				
Arsenic	0.0517	0.0010	0.05	0.004675	94	70	130				
Barium	0.0515	0.050	0.05	0.04539	12	70	130				S
Beryllium	0.0506	0.0010	0.05	0	101	70	130				
Cadmium	0.0516	0.0010	0.05	0.0001176	103	70	130				
Chromium	0.0511	0.0050	0.05	0	102	70	130				
Cobalt	0.0522	0.0050	0.05	0.000332	104	70	130				
Copper	0.0534	0.0050	0.05	0.009494	88	70	130				
Iron	0.162	0.020	0.15	0.0511	74	70	130				
Lead	0.0505	0.0010	0.05	0.0002147	101	70	130				
Manganese	0.0521	0.0010	0.05	0.3303		70	130				A
Molybdenum	0.0490	0.0010	0.05	0.005128	88	70	130				
Nickel	0.0528	0.0050	0.05	0.001004	104	70	130				
Selenium	0.0543	0.0010	0.05	0.0002417	108	70	130				
Silver	0.0198	0.0010	0.02	0	99	70	130				
Uranium	0.0466	0.00030	0.05	0.005797	82	70	130				
Vanadium	0.0486	0.010	0.05	0.0003143	97	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111621

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 97** SampType: **Sample Matrix Spike** Lab ID: **H15120093-008BMS** Method: **E200.8**

Analysis Date: **12/10/15 18:54** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	0.0620	0.010	0.05	0.1117	-99	70	130				S

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Run ID :Run Order: **ICPMS204-B_151210A: 98** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-008BMSD** Method: **E200.8**

Analysis Date: **12/10/15 18:57** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0522	0.030	0.05	0.007585	89	70	130	0.05166	1.1	20	
Antimony	0.0483	0.0010	0.05	0.0002536	96	70	130	0.048	0.7	20	
Arsenic	0.0520	0.0010	0.05	0.004675	95	70	130	0.05173	0.6	20	
Barium	0.0515	0.050	0.05	0.04539	12	70	130	0.05152	0.1	20	S
Beryllium	0.0509	0.0010	0.05	0	102	70	130	0.05063	0.6	20	
Cadmium	0.0520	0.0010	0.05	0.0001176	104	70	130	0.05161	0.7	20	
Chromium	0.0510	0.0050	0.05	0	102	70	130	0.05114	0.2	20	
Cobalt	0.0518	0.0050	0.05	0.000332	103	70	130	0.0522	0.7	20	
Copper	0.0530	0.0050	0.05	0.009494	87	70	130	0.05335	0.6	20	
Iron	0.162	0.020	0.15	0.0511	74	70	130	0.162	0.2	20	
Lead	0.0503	0.0010	0.05	0.0002147	100	70	130	0.0505	0.4	20	
Manganese	0.0518	0.0010	0.05	0.3303		70	130	0.05206	0.4	20	A
Molybdenum	0.0495	0.0010	0.05	0.005128	89	70	130	0.04903	0.9	20	
Nickel	0.0530	0.0050	0.05	0.001004	104	70	130	0.05279	0.5	20	
Selenium	0.0536	0.0010	0.05	0.0002417	107	70	130	0.05429	1.4	20	
Silver	0.0206	0.0010	0.02	0	103	70	130	0.01976	4.1	20	
Uranium	0.0471	0.00030	0.05	0.005797	83	70	130	0.04664	0.9	20	
Vanadium	0.0487	0.010	0.05	0.0003143	97	70	130	0.04857	0.3	20	
Zinc	0.0611	0.010	0.05	0.1117	-101	70	130	0.06204	1.5	20	S

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111621

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 129** SampType: **Sample Matrix Spike** Lab ID: **H15120093-018BMS** Method: **E200.8**

Analysis Date: **12/10/15 20:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0514	0.030	0.05	0.002045	99	70	130				
Antimony	0.0485	0.0010	0.05	0	97	70	130				
Arsenic	0.0513	0.0010	0.05	0	103	70	130				
Barium	0.0512	0.050	0.05	0.001409	100	70	130				
Beryllium	0.0505	0.0010	0.05	0	101	70	130				
Cadmium	0.0519	0.0010	0.05	0	104	70	130				
Chromium	0.0507	0.0050	0.05	0	101	70	130				
Cobalt	0.0520	0.0050	0.05	0	104	70	130				
Copper	0.0526	0.0050	0.05	0	105	70	130				
Iron	0.156	0.020	0.15	0.002974	102	70	130				
Lead	0.0501	0.0010	0.05	0	100	70	130				
Manganese	0.0514	0.0010	0.05	0.0007165	101	70	130				
Molybdenum	0.0492	0.0010	0.05	0.0000577	98	70	130				
Nickel	0.0526	0.0050	0.05	0	105	70	130				
Selenium	0.0531	0.0010	0.05	0	106	70	130				
Silver	0.0197	0.0010	0.02	0	98	70	130				
Uranium	0.0461	0.00030	0.05	0.0000552	92	70	130				
Vanadium	0.0484	0.010	0.05	0	97	70	130				
Zinc	0.0616	0.010	0.05	0.008629	106	70	130				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Run ID :Run Order: **ICPMS204-B_151210A: 130** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-018BMSD** Method: **E200.8**

Analysis Date: **12/10/15 20:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0505	0.030	0.05	0.002045	97	70	130	0.05144	1.8	20	
Antimony	0.0488	0.0010	0.05	0	98	70	130	0.04852	0.7	20	
Arsenic	0.0519	0.0010	0.05	0	104	70	130	0.05127	1.3	20	
Barium	0.0522	0.050	0.05	0.001409	102	70	130	0.05121	1.9	20	
Beryllium	0.0514	0.0010	0.05	0	103	70	130	0.05052	1.8	20	
Cadmium	0.0520	0.0010	0.05	0	104	70	130	0.05193	0.2	20	
Chromium	0.0513	0.0050	0.05	0	103	70	130	0.0507	1.2	20	

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111621

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151210A: 130** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-018BMSD** Method: **E200.8**

Analysis Date: **12/10/15 20:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 19	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cobalt	0.0523	0.0050	0.05	0	105	70	130	0.05199	0.6	20	
Copper	0.0529	0.0050	0.05	0	106	70	130	0.05256	0.6	20	
Iron	0.159	0.020	0.15	0.002974	104	70	130	0.1565	1.7	20	
Lead	0.0500	0.0010	0.05	0	100	70	130	0.0501	0.2	20	
Manganese	0.0513	0.0010	0.05	0.0007165	101	70	130	0.05139	0.1	20	
Molybdenum	0.0496	0.0010	0.05	0.0000577	99	70	130	0.04923	0.7	20	
Nickel	0.0531	0.0050	0.05	0	106	70	130	0.0526	0.9	20	
Selenium	0.0533	0.0010	0.05	0	107	70	130	0.05311	0.4	20	
Silver	0.0207	0.0010	0.02	0	104	70	130	0.01966	5.3	20	
Uranium	0.0464	0.00030	0.05	0.0000552	93	70	130	0.04607	0.6	20	
Vanadium	0.0486	0.010	0.05	0	97	70	130	0.04842	0.4	20	
Zinc	0.0620	0.010	0.05	0.008629	107	70	130	0.06165	0.5	20	

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-006B, H15120093-007B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-016B, H15120093-017B, H15120093-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111638

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151211C: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**

Analysis Date: **12/11/15 13:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.510	0.10	0.5	0	102	90	110				

Associated samples: **H15120093-010A, H15120093-012A, H15120093-014A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **FIA203-HE_151211C: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**

Analysis Date: **12/11/15 13:20** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.00457	0.10		0		0	0				

Associated samples: **H15120093-010A, H15120093-012A, H15120093-014A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **FIA203-HE_151211C: 26** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**

Analysis Date: **12/11/15 13:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.502	0.10	0.5	0	100	90	110				

Associated samples: **H15120093-010A, H15120093-012A, H15120093-014A, H15120093-017A, H15120093-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111664

Date: *29-Dec-15*

Run ID :Run Order: **FIA202-HE_151214B: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E365.1**

Analysis Date: **12/14/15 12:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.242	0.010	0.25	0	97	90	110				

Associated samples: **H15120093-017D, H15120093-018D**

Run ID :Run Order: **FIA202-HE_151214B: 10** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E365.1**

Analysis Date: **12/14/15 12:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	0.0936	0.010	0.1	0	94	90	110				

Associated samples: **H15120093-017D, H15120093-018D**

Run ID :Run Order: **FIA202-HE_151214B: 11** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E365.1**

Analysis Date: **12/14/15 12:43** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phosphorus, Total as P	-0.000350	0.010		0		0	0				

Associated samples: **H15120093-017D, H15120093-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111723

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151214B: 8** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **12/15/15 02:29** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.303	0.10	0.3	0	101	90	110				
Antimony	0.0602	0.050	0.06	0	100	90	110				
Barium	0.0601	0.10	0.06	0	100	90	110				
Cadmium	0.0312	0.0010	0.03	0	104	90	110				
Iron	0.304	0.020	0.3	0	101	90	110				
Manganese	0.308	0.010	0.3	0	103	90	110				
Silver	0.0310	0.0050	0.03	0	103	90	110				

Associated samples: **H15120093-001B, H15120093-001C, H15120093-002B, H15120093-002C, H15120093-003B, H15120093-003C, H15120093-004B, H15120093-004C, H15120093-005B, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151214B: 9** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **12/15/15 02:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	40.7	0.10	40	0	102	70	130				
Antimony	0.000343	0.050		0							
Barium	0.000244	0.10		0							
Cadmium	0.000537	0.0010		0							
Iron	99.3	0.020	100	0	99	70	130				
Manganese	0.000951	0.010		0							
Silver	0.000292	0.0050		0							

Associated samples: **H15120093-001B, H15120093-001C, H15120093-002B, H15120093-002C, H15120093-003B, H15120093-003C, H15120093-004B, H15120093-004C, H15120093-005B, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151214B: 10** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **12/15/15 02:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	41.7	0.10	40	0	104	70	130				
Antimony	0.000123	0.050		0		0	0				
Barium	7.30E-05	0.10		0		0	0				
Cadmium	0.0107	0.0010	0.01	0	107	70	130				
Iron	102	0.020	100	0	102	70	130				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111723

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151214B: 10** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **12/15/15 02:35** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 7	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Manganese	0.0211	0.010	0.02	0	106	70	130				
Silver	0.0196	0.0050	0.02	0	98	70	130				

Associated samples: **H15120093-001B, H15120093-001C, H15120093-002B, H15120093-002C, H15120093-003B, H15120093-003C, H15120093-004B, H15120093-004C, H15120093-005B, H15120093-005C, H15120093-006C, H15120093-007C, H15120093-008C, H15120093-009C, H15120093-010C, H15120093-011C, H15120093-012C, H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151214B: 15** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **12/15/15 02:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0008									
Barium	ND	8E-05									
Cadmium	ND	2E-05									

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B**

Run ID :Run Order: **ICPMS204-B_151214B: 16** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**

Analysis Date: **12/15/15 02:55** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0507	0.10	0.05	0	101	85	115				
Barium	0.0499	0.10	0.05	0	100	85	115				
Cadmium	0.0501	0.0010	0.05	0	100	85	115				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B**

Run ID :Run Order: **ICPMS204-B_151214B: 26** SampType: **Sample Matrix Spike** Lab ID: **H15120092-002BMS** Method: **E200.8**

Analysis Date: **12/15/15 03:40** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0482	0.030	0.05	0	96	70	130				
Barium	0.110	0.050	0.05	0.05862	102	70	130				
Cadmium	0.0510	0.0010	0.05	0	102	70	130				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111723

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151214B: 27** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120092-002BMSD** Method: **E200.8**

Analysis Date: **12/15/15 03:43** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0467	0.030	0.05	0	93	70	130	0.04817	3.1	20	
Barium	0.110	0.050	0.05	0.05862	104	70	130	0.1095	0.8	20	
Cadmium	0.0512	0.0010	0.05	0	102	70	130	0.05099	0.5	20	

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B**

Run ID :Run Order: **ICPMS204-B_151214B: 57** SampType: **Sample Matrix Spike** Lab ID: **H15120093-010BMS** Method: **E200.8**

Analysis Date: **12/15/15 05:19** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0514	0.030	0.05	0	103	70	130				
Barium	0.0954	0.050	0.05	0.0452	100	70	130				
Cadmium	0.0505	0.0010	0.05	0.0000854	101	70	130				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B**

Run ID :Run Order: **ICPMS204-B_151214B: 58** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-010BMSD** Method: **E200.8**

Analysis Date: **12/15/15 05:23** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0504	0.030	0.05	0	101	70	130	0.0514	1.9	20	
Barium	0.0958	0.050	0.05	0.0452	101	70	130	0.0954	0.4	20	
Cadmium	0.0511	0.0010	0.05	0.0000854	102	70	130	0.05054	1.1	20	

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111733

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151216A: 7** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E350.1**
Analysis Date: **12/16/15 12:00** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	9.78	0.25	9.25	0	106	90	110				

Associated samples: **H15120093-018D**

Run ID :Run Order: **FIA203-HE_151216A: 8** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E350.1**
Analysis Date: **12/16/15 12:01** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	1.04	0.055	1	0	104	90	110				

Associated samples: **H15120093-018D**

Run ID :Run Order: **FIA203-HE_151216A: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **E350.1**
Analysis Date: **12/16/15 12:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.511	0.050	0.5	0	102	90	110				

Associated samples: **H15120093-018D**

Run ID :Run Order: **FIA203-HE_151216A: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E350.1**
Analysis Date: **12/16/15 12:04** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	-0.0239	0.050		0		0	0				

Associated samples: **H15120093-018D**

Run ID :Run Order: **FIA203-HE_151216A: 12** SampType: **Sample Matrix Spike** Lab ID: **H15120093-018DMS** Method: **E350.1**
Analysis Date: **12/16/15 12:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.964	0.055	1	0	96	80	120				

Associated samples: **H15120093-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111733

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151216A: 13** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-018DMSD** Method: **E350.1**
Analysis Date: **12/16/15 12:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	0.986	0.055	1	0	99	80	120	0.9637	2.3	10	

Associated samples: **H15120093-018D**

Run ID :Run Order: **FIA203-HE_151216A: 58** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E350.1**
Analysis Date: **12/16/15 13:07** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	10.1	0.25	9.25	0	109	90	110				

Associated samples: **H15120093-018D**

Run ID :Run Order: **FIA203-HE_151216A: 59** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E350.1**
Analysis Date: **12/16/15 13:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	1.08	0.055	1	0	108	90	110				

Associated samples: **H15120093-018D**

Run ID :Run Order: **FIA203-HE_151216A: 61** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E350.1**
Analysis Date: **12/16/15 13:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	-0.0285	0.050		0		0	0				

Associated samples: **H15120093-018D**

Run ID :Run Order: **FIA203-HE_151216A: 78** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E350.1**
Analysis Date: **12/16/15 14:32** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	9.39	0.25	9.25	0	102	90	110				

Associated samples: **H15120093-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111733

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151216A: 79** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E350.1**

Analysis Date: **12/16/15 14:33** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	1.02	0.055	1	0	**102**	90	110				

Associated samples: **H15120093-018D**

Run ID :Run Order: **FIA203-HE_151216A: 81** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **E350.1**

Analysis Date: **12/16/15 14:36** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Ammonia as N	-0.0420	0.050		0		0	0				

Associated samples: **H15120093-018D**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111742

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151216A: 28** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **12/16/15 19:05** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.0308	0.0010	0.03	0	103	90	110				
Iron	0.312	0.020	0.3	0	104	90	110				
Zinc	0.0610	0.010	0.06	0	102	90	110				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-002C, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-008B, H15120093-008C, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-013C, H15120093-014B, H15120093-014C, H15120093-015B, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018B, H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151216A: 29** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **12/16/15 19:08** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.000603	0.0010		0							
Iron	98.1	0.020	100	0	98	70	130				
Zinc	0.00133	0.010		0							

Associated samples: **H15120093-001B, H15120093-002B, H15120093-002C, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-008B, H15120093-008C, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-013C, H15120093-014B, H15120093-014C, H15120093-015B, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018B, H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151216A: 30** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **12/16/15 19:11** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.0103	0.0010	0.01	0	103	70	130				
Iron	97.2	0.020	100	0	97	70	130				
Zinc	0.0106	0.010	0.01	0	106	70	130				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-002C, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-008B, H15120093-008C, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-013C, H15120093-014B, H15120093-014C, H15120093-015B, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018B, H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151216A: 36** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **12/16/15 19:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	ND	2E-05									
Iron	0.002	0.0006									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111742

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151216A: 36** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**
Analysis Date: **12/16/15 19:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Zinc	0.0005	0.0001									

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-018B**

Run ID :Run Order: **ICPMS204-B_151216A: 37** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**
Analysis Date: **12/16/15 19:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.0506	0.0010	0.05	0	101	85	115				
Iron	0.160	0.020	0.15	0.001891	105	85	115				
Zinc	0.0525	0.010	0.05	0.0004618	104	85	115				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-018B**

Run ID :Run Order: **ICPMS204-B_151216A: 57** SampType: **Sample Matrix Spike** Lab ID: **H15120093-010BMS** Method: **E200.8**
Analysis Date: **12/16/15 20:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.0502	0.0010	0.05	0.0001332	100	70	130				
Iron	0.188	0.020	0.15	0.03731	100	70	130				
Zinc	0.153	0.010	0.05	0.1037	98	70	130				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-018B**

Run ID :Run Order: **ICPMS204-B_151216A: 58** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120093-010BMSD** Method: **E200.8**
Analysis Date: **12/16/15 20:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.0508	0.0010	0.05	0.0001332	101	70	130	0.05021	1.3	20	
Iron	0.191	0.020	0.15	0.03731	103	70	130	0.1877	1.8	20	
Zinc	0.152	0.010	0.05	0.1037	96	70	130	0.1527	0.8	20	

Associated samples: **H15120093-001B, H15120093-002B, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-008B, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-014B, H15120093-015B, H15120093-018B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111742

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151216A: 110** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **12/16/15 23:28** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.0306	0.0010	0.03	0	102	90	110				
Iron	0.313	0.020	0.3	0	104	90	110				
Zinc	0.0622	0.010	0.06	0	104	90	110				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-002C, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-008B, H15120093-008C, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-013C, H15120093-014B, H15120093-014C, H15120093-015B, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018B, H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151216A: 111** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **12/16/15 23:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.00101	0.0010		0							
Iron	98.1	0.020	100	0	98	70	130				
Zinc	0.00218	0.010		0							

Associated samples: **H15120093-001B, H15120093-002B, H15120093-002C, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-008B, H15120093-008C, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-013C, H15120093-014B, H15120093-014C, H15120093-015B, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018B, H15120093-018C**

Run ID :Run Order: **ICPMS204-B_151216A: 112** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **12/16/15 23:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 3	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Cadmium	0.0101	0.0010	0.01	0	101	70	130				
Iron	99.2	0.020	100	0	99	70	130				
Zinc	0.0107	0.010	0.01	0	107	70	130				

Associated samples: **H15120093-001B, H15120093-002B, H15120093-002C, H15120093-003B, H15120093-004B, H15120093-005B, H15120093-008B, H15120093-008C, H15120093-009B, H15120093-010B, H15120093-011B, H15120093-012B, H15120093-013B, H15120093-013C, H15120093-014B, H15120093-014C, H15120093-015B, H15120093-015C, H15120093-016C, H15120093-017C, H15120093-018B, H15120093-018C**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111760

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151217A: 6** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV** Method: **E200.7**

Analysis Date: **12/17/15 12:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	3.95	0.10	4	0	99	90	110				
Barium	0.778	0.10	0.8	0	97	90	110				
Beryllium	0.402	0.0010	0.4	0	100	90	110				
Copper	0.783	0.010	0.8	0	98	90	110				
Iron	3.93	0.020	4	0	98	90	110				
Manganese	3.91	0.010	4	0	98	90	110				
Nickel	0.780	0.010	0.8	0	98	90	110				
Vanadium	0.781	0.10	0.8	0	98	90	110				
Zinc	0.768	0.010	0.8	0	96	90	110				

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A, H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-037A, H15120093-038A, H15120093-039A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Run ID :Run Order: **ICP2-HE_151217A: 10** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **12/17/15 12:45** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	521	0.10	500	0	104	80	120				
Barium	0.00364	0.10		0		0	0				
Beryllium	0.000100	0.0010		0		0	0				
Copper	0.000640	0.010		0		0	0				
Iron	182	0.020	200	0	91	80	120				
Manganese	-0.00293	0.010		0		0	0				
Nickel	0.00776	0.010		0		0	0				
Vanadium	0.00334	0.10		0		0	0				
Zinc	-0.00182	0.010		0		0	0				

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A, H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-037A, H15120093-038A, H15120093-039A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111760

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151217A: 11** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **12/17/15 12:49** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	521	0.10	500	0	**104**	80	120				
Barium	0.506	0.10	0.5	0	**101**	80	120				
Beryllium	0.487	0.0010	0.5	0	**97**	80	120				
Copper	0.505	0.010	0.5	0	**101**	80	120				
Iron	181	0.020	200	0	**90**	80	120				
Manganese	0.471	0.010	0.5	0	**94**	80	120				
Nickel	0.906	0.010	1	0	**91**	80	120				
Vanadium	0.476	0.10	0.5	0	**95**	80	120				
Zinc	0.949	0.010	1	0	**95**	80	120				

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A, H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-037A, H15120093-038A, H15120093-039A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Run ID :Run Order: **ICP2-HE_151217A: 77** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.7**

Analysis Date: **12/17/15 16:58** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	529	0.10	500	0	**106**	80	120				
Barium	0.00490	0.10		0		0	0				
Beryllium	0.000170	0.0010		0		0	0				
Copper	0.00306	0.010		0		0	0				
Iron	179	0.020	200	0	**89**	80	120				
Manganese	-0.00280	0.010		0		0	0				
Nickel	0.00479	0.010		0		0	0				
Vanadium	-0.00377	0.10		0		0	0				
Zinc	-0.000340	0.010		0		0	0				

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A, H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-037A, H15120093-038A, H15120093-039A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111760

Date: *29-Dec-15*

Run ID :Run Order: **ICP2-HE_151217A: 78** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.7**

Analysis Date: **12/17/15 17:02** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 9	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	533	0.10	500	0	**107**	80	120				
Barium	0.512	0.10	0.5	0	**102**	80	120				
Beryllium	0.492	0.0010	0.5	0	**98**	80	120				
Copper	0.516	0.010	0.5	0	**103**	80	120				
Iron	181	0.020	200	0	**91**	80	120				
Manganese	0.478	0.010	0.5	0	**96**	80	120				
Nickel	0.926	0.010	1	0	**93**	80	120				
Vanadium	0.484	0.10	0.5	0	**97**	80	120				
Zinc	1.02	0.010	1	0	**102**	80	120				

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A, H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-037A, H15120093-038A, H15120093-039A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111784

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151217A: 25** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **12/17/15 17:34** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 14	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0598	0.0010	0.06	0	100	90	110				
Arsenic	0.0603	0.0010	0.06	0	100	90	110				
Barium	0.0598	0.0010	0.06	0	100	90	110				
Boron	0.0618	0.0010	0.06	0	103	90	110				
Cadmium	0.0312	0.0010	0.03	0	104	90	110				
Chromium	0.0605	0.0010	0.06	0	101	90	110				
Cobalt	0.0609	0.0010	0.06	0	101	90	110				
Lead	0.0589	0.0010	0.06	0	98	90	110				
Molybdenum	0.0584	0.0010	0.06	0	97	90	110				
Selenium	0.0604	0.0010	0.06	0	101	90	110				
Silver	0.0305	0.0010	0.03	0	102	90	110				
Uranium	0.0602	0.00030	0.06	0	100	90	110				
Vanadium	0.0593	0.0010	0.06	0	99	90	110				
Zinc	0.0615	0.0010	0.06	0	103	90	110				

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A, H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-037A, H15120093-038A, H15120093-039A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Run ID :Run Order: **ICPMS204-B_151217A: 119** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **12/17/15 23:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 14	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.0596	0.0010	0.06	0	99	90	110				
Arsenic	0.0611	0.0010	0.06	0	102	90	110				
Barium	0.0591	0.0010	0.06	0	99	90	110				
Boron	0.0627	0.0010	0.06	0	104	90	110				
Cadmium	0.0309	0.0010	0.03	0	103	90	110				
Chromium	0.0607	0.0010	0.06	0	101	90	110				
Cobalt	0.0617	0.0010	0.06	0	103	90	110				
Lead	0.0595	0.0010	0.06	0	99	90	110				
Molybdenum	0.0583	0.0010	0.06	0	97	90	110				
Selenium	0.0620	0.0010	0.06	0	103	90	110				
Silver	0.0308	0.0010	0.03	0	103	90	110				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111784

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151217A: 119** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **12/17/15 23:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 14	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Uranium	0.0593	0.00030	0.06	0	99	90	110				
Vanadium	0.0595	0.0010	0.06	0	99	90	110				
Zinc	0.0611	0.0010	0.06	0	102	90	110				

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A, H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-037A, H15120093-038A, H15120093-039A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111789

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151217B: 8** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **E200.8**

Analysis Date: **12/17/15 23:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.289	0.10	0.3	0	97	90	110				
Cadmium	0.0309	0.0010	0.03	0	103	90	110				

Associated samples: **H15120093-004C, H15120093-007B, H15120093-011B**

Run ID :Run Order: **ICPMS204-B_151217B: 9** SampType: **Interference Check Sample A** Lab ID: **ICSA** Method: **E200.8**

Analysis Date: **12/17/15 23:06** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.1	0.10	40	0	95	70	130				
Cadmium	0.000360	0.0010		0							

Associated samples: **H15120093-004C, H15120093-007B, H15120093-011B**

Run ID :Run Order: **ICPMS204-B_151217B: 10** SampType: **Interference Check Sample AB** Lab ID: **ICSAB** Method: **E200.8**

Analysis Date: **12/17/15 23:09** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	38.2	0.10	40	0	96	70	130				
Cadmium	0.0101	0.0010	0.01	0	101	70	130				

Associated samples: **H15120093-004C, H15120093-007B, H15120093-011B**

Run ID :Run Order: **ICPMS204-B_151217B: 19** SampType: **Method Blank** Lab ID: **ICB** Method: **E200.8**

Analysis Date: **12/18/15 09:38** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	ND	0.0008									
Cadmium	ND	2E-05									

Associated samples: **H15120093-007B, H15120093-011B**

Run ID :Run Order: **ICPMS204-B_151217B: 20** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**

Analysis Date: **12/18/15 09:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0446	0.10	0.05	0	89	85	115				
Cadmium	0.0490	0.0010	0.05	0	98	85	115				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111789

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151217B: 20** SampType: **Laboratory Fortified Blank** Lab ID: **LFB** Method: **E200.8**
Analysis Date: **12/18/15 09:42** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Associated samples: **H15120093-007B, H15120093-011B**

Run ID :Run Order: **ICPMS204-B_151217B: 23** SampType: **Sample Matrix Spike** Lab ID: **H15120092-001BMS** Method: **E200.8**
Analysis Date: **12/18/15 09:51** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0470	0.030	0.05	0.001277	**92**	70	130				
Cadmium	0.0494	0.0010	0.05	0	**99**	70	130				

Associated samples: **H15120093-007B, H15120093-011B**

Run ID :Run Order: **ICPMS204-B_151217B: 24** SampType: **Sample Matrix Spike Duplicate** Lab ID: **H15120092-001BMSD** Method: **E200.8**
Analysis Date: **12/18/15 09:55** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 2	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aluminum	0.0469	0.030	0.05	0.001277	**91**	70	130	0.04704	**0.3**	20	
Cadmium	0.0499	0.0010	0.05	0	**100**	70	130	0.04944	**0.9**	20	

Associated samples: **H15120093-007B, H15120093-011B**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111802

Date: *29-Dec-15*

Run ID :Run Order: **ICPMS204-B_151218A: 9** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **12/18/15 14:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.0609	0.0010	0.06	0	102	90	110				

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

Run ID :Run Order: **ICPMS204-B_151218A: 41** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **12/18/15 17:03** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.0639	0.0010	0.06	0	107	90	110				

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

Run ID :Run Order: **ICPMS204-B_151218A: 174** SampType: **Initial Calibration Verification Standard** Lab ID: **ICV STD** Method: **SW6020**

Analysis Date: **12/19/15 00:41** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Boron	0.0620	0.0010	0.06	0	103	90	110				

Associated samples: **H15120093-021A, H15120093-024A, H15120093-027A, H15120093-030A, H15120093-033A, H15120093-036A, H15120093-039A, H15120093-042A, H15120093-045A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111840

Date: *29-Dec-15*

Run ID :Run Order: **SOIL DRYING OVEN 2_151221C: 1** SampType: **Sample Duplicate** Lab ID: **H15120093-023ADUP** Method: **D2974**

Analysis Date: **12/22/15 08:18** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	21.7	0.20		0				21.39	1.4	20	

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A, H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-037A, H15120093-038A, H15120093-039A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Run ID :Run Order: **SOIL DRYING OVEN 2_151221C: 2** SampType: **Sample Duplicate** Lab ID: **H15120093-030ADUP** Method: **D2974**

Analysis Date: **12/22/15 08:18** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	21.3	0.20		0				21.66	1.6	20	

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A, H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-037A, H15120093-038A, H15120093-039A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Run ID :Run Order: **SOIL DRYING OVEN 2_151221C: 3** SampType: **Sample Duplicate** Lab ID: **H15120093-039ADUP** Method: **D2974**

Analysis Date: **12/22/15 08:18** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	17.1	0.20		0				14.71	15	20	

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A, H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-037A, H15120093-038A, H15120093-039A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Run ID :Run Order: **SOIL DRYING OVEN 2_151221C: 3** SampType: **Sample Duplicate** Lab ID: **H15120093-045ADUP** Method: **D2974**

Analysis Date: **12/22/15 08:18** Units: **wt%** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Moisture	18.8	0.20		0				17.38	8.0	20	

Associated samples: **H15120093-019A, H15120093-020A, H15120093-021A, H15120093-022A, H15120093-023A, H15120093-024A, H15120093-025A, H15120093-026A, H15120093-027A, H15120093-028A, H15120093-029A, H15120093-030A, H15120093-031A, H15120093-032A, H15120093-033A, H15120093-034A, H15120093-035A, H15120093-036A, H15120093-037A, H15120093-038A, H15120093-039A, H15120093-040A, H15120093-041A, H15120093-042A, H15120093-043A, H15120093-044A, H15120093-045A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: R111945

Date: *29-Dec-15*

Run ID :Run Order: **FIA203-HE_151229A: 9** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**

Analysis Date: **12/28/15 14:13** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.529	0.10	0.5	0	106	90	110				

Associated samples: **H15120093-007A, H15120093-008A, H15120093-009A, H15120093-011A, H15120093-013A, H15120093-015A, H15120093-016A**

Run ID :Run Order: **FIA203-HE_151229A: 10** SampType: **Initial Calibration Blank, Instrument Blank** Lab ID: **ICB** Method: **A4500 N-C**

Analysis Date: **12/28/15 14:14** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.0122	0.10		0		0	0				

Associated samples: **H15120093-007A, H15120093-008A, H15120093-009A, H15120093-011A, H15120093-013A, H15120093-015A, H15120093-016A**

Run ID :Run Order: **FIA203-HE_151229A: 32** SampType: **Continuing Calibration Verification Standar** Lab ID: **CCV** Method: **A4500 N-C**

Analysis Date: **12/28/15 14:40** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Nitrogen, Total	0.535	0.10	0.5	0	107	90	110				

Associated samples: **H15120093-007A, H15120093-008A, H15120093-009A, H15120093-011A, H15120093-013A, H15120093-015A, H15120093-016A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: TSS151207A

Date: *29-Dec-15*

Run ID :Run Order: **ACCU-124 (14410200)_151207A: 1** SampType: **Method Blank** Lab ID: **MB-1_151207A** Method: **A2540 D**

Analysis Date: **12/07/15 13:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	0.1									

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **ACCU-124 (14410200)_151207A: 2** SampType: **Laboratory Control Sample** Lab ID: **LCS-2_151207A** Method: **A2540 D**

Analysis Date: **12/07/15 13:30** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	90.0	10	100	0	**90**	80	120				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **ACCU-124 (14410200)_151207A: 5** SampType: **Sample Duplicate** Lab ID: **H15120092-002ADUP** Method: **A2540 D**

Analysis Date: **12/07/15 13:31** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	27.8	10		0				27.4	**1.4**	5	

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **ACCU-124 (14410200)_151207A: 1** SampType: **Sample Duplicate** Lab ID: **H15120093-011ADUP** Method: **A2540 D**

Analysis Date: **12/07/15 13:37** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	25.4	10		0				26.2	**3.1**	5	

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Client: MT DEQ-Federal Superfund
Work Order: H15120093
Project: Silver Bow Creek Monitoring

ANALYTICAL QC SUMMARY REPORT

Prepared by Helena, MT Branch

BatchID: TSS151207A

Date: *29-Dec-15*

Run ID :Run Order: **ACCU-124 (14410200)_151207A: 2** SampType: **Method Blank** Lab ID: **MB-25_151207A** Method: **A2540 D**

Analysis Date: **12/07/15 13:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	ND	0.1									

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **ACCU-124 (14410200)_151207A: 2** SampType: **Laboratory Control Sample** Lab ID: **LCS-26_151207A** Method: **A2540 D**

Analysis Date: **12/07/15 13:39** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	97.0	10	100	0	**97**	80	120				

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Run ID :Run Order: **ACCU-124 (14410200)_151207A: 3** SampType: **Sample Duplicate** Lab ID: **H15120094-002BDUP** Method: **A2540 D**

Analysis Date: **12/07/15 13:47** Units: **mg/L** **Prep Info:** Prep Date: Prep Method:

Analytes 1	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Solids, Total Suspended TSS @ 105 C	50.0	10		0				50	**0.0**	5	

Associated samples: **H15120093-001A, H15120093-002A, H15120093-003A, H15120093-004A, H15120093-005A, H15120093-006A, H15120093-007A, H15120093-008A, H15120093-009A, H15120093-010A, H15120093-011A, H15120093-012A, H15120093-013A, H15120093-014A, H15120093-015A, H15120093-016A, H15120093-017A, H15120093-018A**

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limit
R - RPD outside accepted recovery limits
N - Analyte concentration was not sufficiently high to calculate RPD
A - Analyte concentration greater than four times the spike amount

Work Order Receipt Checklist

MT DEQ-Federal Superfund H15120093

Login completed by: Tracy L. Lorash
Date Received: 12/7/2015
Reviewed by: BL2000\rwilliams
Received by: TLL
Reviewed Date: 12/14/2015
Carrier name: Hand Del

Shipping container/cooler in good condition?	Yes ☑	No ☐	Not Present ☐
Custody seals intact on all shipping container(s)/cooler(s)?	Yes ☐	No ☐	Not Present ☑
Custody seals intact on all sample bottles?	Yes ☐	No ☐	Not Present ☑
Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☐	No ☑	
Samples in proper container/bottle?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	
All samples received within holding time? (Exclude analyses that are considered field parameters such as pH, DO, Res Cl, Sulfite, Ferrous Iron, etc.)	Yes ☑	No ☐	
Temp Blank received in all shipping container(s)/cooler(s)?	Yes ☐	No ☑	Not Applicable ☐
Container/Temp Blank temperature:	°C See comments		
Water - VOA vials have zero headspace?	Yes ☐	No ☐	Not Applicable ☑
Water - pH acceptable upon receipt?	Yes ☑	No ☐	Not Applicable ☐

Standard Reporting Procedures:

Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH, Dissolved Oxygen and Residual Chlorine, are qualified as being analyzed outside of recommended holding time.

Solid/soil samples are reported on a wet weight basis (as received) unless specifically indicated. If moisture corrected, data units are typically noted as –dry. For agricultural and mining soil parameters/characteristics, all samples are dried and ground prior to sample analysis.

Contact and Corrective Action Comments:

Sample ID on COC is Field Blank #2 (SS-06G) -ID on raw and nutrient bottles is Field Blank #2, ID on metals and DOC bottles is Field Blank SS-06G. Logged in with ID from COC.
Collection time on COC for SS-07 is 1415 - bottles have time of 1430. Logged in with time from bottles per Gary.
Sample ID on COC is Field Duplicate #2 (SS-10A) -ID on bottles does not include parentheses. Logged in with ID from COC
Collection time on COC for SS-10B is 1115 - bottles have time of 1100. Logged in with time from bottles per Gary.
Sample ID on COC is Sediment Duplicate #2 (SS-10B) -ID on bottles does not include parentheses. Logged in with ID from COC.
Collection time on COC for Sediment Duplicate #2 (SS-10B) is 1115 - jar has time of 1100. Logged in with time from jar per Gary.
Collection time on COC for SS-11C is 1015 - bottles have time of 0945. Logged in with time from bottles per Gary.
Sample ID on COC is Field Duplicate #1 (SS-14) -ID on bottles does not include parentheses. Logged in with ID from COC.

Work Order Receipt Checklist - Continued

MT DEQ-Federal Superfund H15120093

COC has SS-15G collected 12/3/15 @ 1315 listed as a sample, however this sample was submitted on another COC. Sample ID on COC is Field Blank #1 (SS-19) -ID on bottles is Field Blank #1. Logged in with ID from COC. Cooler1 containing sediment jars was received at 19.3°C, Cooler 2 at 5.2°C, Cooler 3 at 8.5°C, Cooler 4 at 1.6°C, Cooler 5 at 2.6°C, Cooler 6 containing sediment jars at 18.5°C. Samples in Cooler 1 and 6 were not received on ice and temperatures were taken from a client sample, samples in Cooler 2, 4 & 5 were received on ice and temperatures were taken from a temperature blank, samples in Cooler 3 was received on melted ice and temperature was taken from a temperature blank. tl 12/8/15

APPENDIX C

SURFACE WATER DATA

Table C1. Surface water analyte concentrations in the Streamside Tailings Operable Unit, 2015.

Site	Type	Lab ID	Date	Time	Parameter	Result	Reporting Limit	Unit	Method
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Alkalinity, Total as CaCO3	75	4	mg/L	A2320 B
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Alkalinity, Total as CaCO3	80	4	mg/L	A2320 B
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Alkalinity, Total as CaCO3	86	4	mg/L	A2320 B
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Alkalinity, Total as CaCO3	100	4	mg/L	A2320 B
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Alkalinity, Total as CaCO3	98	4	mg/L	A2320 B
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Alkalinity, Total as CaCO3	94	4	mg/L	A2320 B
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Alkalinity, Total as CaCO3	95	4	mg/L	A2320 B
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Alkalinity, Total as CaCO3	96	4	mg/L	A2320 B
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Alkalinity, Total as CaCO3	95	4	mg/L	A2320 B
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Alkalinity, Total as CaCO3	96	4	mg/L	A2320 B
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Alkalinity, Total as CaCO3	93	4	mg/L	A2320 B
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Alkalinity, Total as CaCO3	94	4	mg/L	A2320 B
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Alkalinity, Total as CaCO3	94	4	mg/L	A2320 B
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Alkalinity, Total as CaCO3	79	4	mg/L	A2320 B
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Alkalinity, Total as CaCO3	93	4	mg/L	A2320 B
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Alkalinity, Total as CaCO3	92	4	mg/L	A2320 B
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Alkalinity, Total as CaCO3	93	4	mg/L	A2320 B
	Field Blank	H15030394-010	26-Mar-15	18:00	Alkalinity, Total as CaCO3	ND	4	mg/L	A2320 B
	Field Blank	H15030393-003	27-Mar-15	17:00	Alkalinity, Total as CaCO3	ND	4	mg/L	A2320 B
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Alkalinity, Total as CaCO3	74	4	mg/L	A2320 B
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Alkalinity, Total as CaCO3	85	4	mg/L	A2320 B
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Alkalinity, Total as CaCO3	84	4	mg/L	A2320 B
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Alkalinity, Total as CaCO3	98	4	mg/L	A2320 B
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Alkalinity, Total as CaCO3	92	4	mg/L	A2320 B
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Alkalinity, Total as CaCO3	86	4	mg/L	A2320 B
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Alkalinity, Total as CaCO3	88	4	mg/L	A2320 B
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Alkalinity, Total as CaCO3	94	4	mg/L	A2320 B
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Alkalinity, Total as	100	4	mg/L	A2320 B

					CaCO3				
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Alkalinity, Total as CaCO3	100	4	mg/L	A2320 B
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Alkalinity, Total as CaCO3	95	4	mg/L	A2320 B
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Alkalinity, Total as CaCO3	93	4	mg/L	A2320 B
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Alkalinity, Total as CaCO3	97	4	mg/L	A2320 B
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Alkalinity, Total as CaCO3	85	4	mg/L	A2320 B
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Alkalinity, Total as CaCO3	73	4	mg/L	A2320 B
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Alkalinity, Total as CaCO3	86	4	mg/L	A2320 B
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Alkalinity, Total as CaCO3	88	4	mg/L	A2320 B
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Alkalinity, Total as CaCO3	89	4	mg/L	A2320 B
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Alkalinity, Total as CaCO3	90	4	mg/L	A2320 B
	Field Blank	H15050235-011	14-May-15	16:30	Alkalinity, Total as CaCO3	ND	4	mg/L	A2320 B
	Field Blank	H15050235-002	15-May-15	15:30	Alkalinity, Total as CaCO3	ND	4	mg/L	A2320 B
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Alkalinity, Total as CaCO3	98	4	mg/L	A2320 B
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Alkalinity, Total as CaCO3	100	4	mg/L	A2320 B
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Alkalinity, Total as CaCO3	120	4	mg/L	A2320 B
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Alkalinity, Total as CaCO3	100	4	mg/L	A2320 B
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Alkalinity, Total as CaCO3	100	4	mg/L	A2320 B
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Alkalinity, Total as CaCO3	100	4	mg/L	A2320 B
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Alkalinity, Total as CaCO3	100	4	mg/L	A2320 B
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
	Field Blank	H15090206-017	8-Sep-15	9:30	Alkalinity, Total as CaCO3	ND	4	mg/L	A2320 B

	Field Blank	H15090206-009	9-Sep-15	8:45	Alkalinity, Total as CaCO3	ND	4	mg/L	A2320 B
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Alkalinity, Total as CaCO3	91	4	mg/L	A2320 B
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Alkalinity, Total as CaCO3	100	4	mg/L	A2320 B
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Alkalinity, Total as CaCO3	100	4	mg/L	A2320 B
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Alkalinity, Total as CaCO3	120	4	mg/L	A2320 B
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Alkalinity, Total as CaCO3	120	4	mg/L	A2320 B
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Alkalinity, Total as CaCO3	120	4	mg/L	A2320 B
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Alkalinity, Total as CaCO3	130	4	mg/L	A2320 B
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Alkalinity, Total as CaCO3	120	4	mg/L	A2320 B
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Alkalinity, Total as CaCO3	130	4	mg/L	A2320 B
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Alkalinity, Total as CaCO3	130	4	mg/L	A2320 B
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Alkalinity, Total as CaCO3	120	4	mg/L	A2320 B
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Alkalinity, Total as CaCO3	120	4	mg/L	A2320 B
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Alkalinity, Total as CaCO3	120	4	mg/L	A2320 B
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Alkalinity, Total as CaCO3	120	4	mg/L	A2320 B
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Alkalinity, Total as CaCO3	120	4	mg/L	A2320 B
	Field Blank	H15120093-018	3-Dec-15	9:30	Alkalinity, Total as CaCO3	ND	4	mg/L	A2320 B
	Field Blank	H15120093-002	4-Dec-15	15:00	Alkalinity, Total as CaCO3	ND	4	mg/L	A2320 B
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Aluminum, Dissolved	0.015	0.009	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8

SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Aluminum, Dissolved	0.019	0.009	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Aluminum, Dissolved	ND	0.009	mg/L	E200.8

SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Aluminum, Dissolved	ND	0.009	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Aluminum, Total Recoverable	0.251	0.009	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Aluminum, Total Recoverable	0.251	0.009	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Aluminum, Total Recoverable	0.125	0.009	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Aluminum, Total Recoverable	0.069	0.009	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Aluminum, Total Recoverable	0.073	0.009	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Aluminum, Total Recoverable	0.097	0.009	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Aluminum, Total Recoverable	0.082	0.009	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Aluminum, Total Recoverable	0.074	0.009	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Aluminum, Total Recoverable	0.145	0.009	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Aluminum, Total Recoverable	0.496	0.009	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Aluminum, Total Recoverable	0.372	0.009	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Aluminum, Total Recoverable	0.392	0.009	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Aluminum, Total Recoverable	0.348	0.009	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Aluminum, Total Recoverable	0.432	0.009	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Aluminum, Total Recoverable	0.367	0.009	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Aluminum, Total Recoverable	0.362	0.009	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Aluminum, Total Recoverable	0.28	0.009	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Aluminum, Total Recoverable	0.326	0.009	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Aluminum, Total Recoverable	0.361	0.009	mg/L	E200.8

	Field Blank	H15030394-010	26-Mar-15	18:00	Aluminum, Total Recoverable	ND	0.009	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Aluminum, Total Recoverable	ND	0.009	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Aluminum, Total Recoverable	0.169	0.009	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Aluminum, Total Recoverable	0.255	0.009	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Aluminum, Total Recoverable	0.232	0.009	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Aluminum, Total Recoverable	0.186	0.009	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Aluminum, Total Recoverable	0.121	0.009	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Aluminum, Total Recoverable	0.113	0.009	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Aluminum, Total Recoverable	0.124	0.009	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Aluminum, Total Recoverable	0.179	0.009	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Aluminum, Total Recoverable	0.358	0.009	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Aluminum, Total Recoverable	0.388	0.009	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Aluminum, Total Recoverable	0.292	0.009	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Aluminum, Total Recoverable	0.253	0.009	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Aluminum, Total Recoverable	0.206	0.009	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Aluminum, Total Recoverable	0.252	0.009	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Aluminum, Total Recoverable	0.384	0.009	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Aluminum, Total Recoverable	0.212	0.009	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Aluminum, Total Recoverable	0.384	0.009	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Aluminum, Total Recoverable	0.373	0.009	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Aluminum, Total Recoverable	0.393	0.009	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Aluminum, Total Recoverable	ND	0.009	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Aluminum, Total Recoverable	ND	0.009	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Aluminum, Total Recoverable	0.034	0.009	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Aluminum, Total Recoverable	0.065	0.009	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Aluminum, Total Recoverable	0.05	0.009	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Aluminum, Total Recoverable	0.044	0.009	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Aluminum, Total Recoverable	0.023	0.009	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Aluminum, Total Recoverable	0.048	0.009	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Aluminum, Total Recoverable	0.059	0.009	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Aluminum, Total Recoverable	0.049	0.009	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Aluminum, Total Recoverable	0.097	0.009	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Aluminum, Total	0.124	0.009	mg/L	E200.8

					Recoverable				
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Aluminum, Total Recoverable	0.204	0.009	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Aluminum, Total Recoverable	0.241	0.009	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Aluminum, Total Recoverable	0.107	0.009	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Aluminum, Total Recoverable	0.072	0.009	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Aluminum, Total Recoverable	0.063	0.009	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Aluminum, Total Recoverable	0.023	0.009	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Aluminum, Total Recoverable	0.065	0.009	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Aluminum, Total Recoverable	0.114	0.009	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Aluminum, Total Recoverable	0.113	0.009	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Aluminum, Total Recoverable	ND	0.009	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Aluminum, Total Recoverable	ND	0.009	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Aluminum, Total Recoverable	0.237	0.009	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Aluminum, Total Recoverable	0.641	0.009	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Aluminum, Total Recoverable	0.586	0.009	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Aluminum, Total Recoverable	0.371	0.009	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Aluminum, Total Recoverable	0.508	0.009	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Aluminum, Total Recoverable	0.788	0.009	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Aluminum, Total Recoverable	0.796	0.009	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Aluminum, Total Recoverable	0.792	0.009	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Aluminum, Total Recoverable	0.301	0.009	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Aluminum, Total Recoverable	0.301	0.009	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Aluminum, Total Recoverable	0.57	0.009	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Aluminum, Total Recoverable	0.556	0.009	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Aluminum, Total Recoverable	0.542	0.009	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Aluminum, Total Recoverable	0.1	0.009	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Aluminum, Total Recoverable	0.085	0.009	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Aluminum, Total Recoverable	0.082	0.009	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Aluminum, Total Recoverable	0.28	0.009	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Aluminum, Total Recoverable	0.101	0.009	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Aluminum, Total Recoverable	0.16	0.009	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Aluminum, Total Recoverable	ND	0.009	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Aluminum, Total Recoverable	ND	0.009	mg/L	E200.8

SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Antimony, Dissolved	0.0007	0.0005	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8

SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Antimony, Total Recoverable	0.0005	0.0005	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Antimony, Total Recoverable	0.0005	0.0005	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Antimony, Total Recoverable	0.0009	0.0005	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8

SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Antimony, Total Recoverable	0.0005	0.0005	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Antimony, Total	ND	0.0005	mg/L	E200.8

					Recoverable				
	Field Blank	H15050235-002	15-May-15	15:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Antimony, Total Recoverable	0.0007	0.0005	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8

SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Antimony, Total Recoverable	ND	0.0005	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Arsenic, Dissolved	0.003	0.001	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Arsenic, Dissolved	0.003	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Arsenic, Dissolved	0.007	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Arsenic, Dissolved	0.004	0.001	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Arsenic, Dissolved	0.003	0.001	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Arsenic, Dissolved	0.004	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Arsenic, Dissolved	0.004	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Arsenic, Dissolved	0.004	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Arsenic, Dissolved	0.007	0.001	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Arsenic, Dissolved	0.003	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Arsenic, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Arsenic, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Arsenic, Dissolved	0.004	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Arsenic, Dissolved	0.004	0.001	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Arsenic, Dissolved	0.004	0.001	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Arsenic, Dissolved	0.01	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Arsenic, Dissolved	0.01	0.001	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Arsenic, Dissolved	0.008	0.001	mg/L	E200.8

SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Arsenic, Dissolved	0.008	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Arsenic, Dissolved	0.008	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Arsenic, Dissolved	0.003	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Arsenic, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Arsenic, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Arsenic, Dissolved	0.003	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Arsenic, Dissolved	0.007	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Arsenic, Dissolved	0.007	0.001	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Arsenic, Dissolved	0.007	0.001	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Arsenic, Dissolved	0.007	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Arsenic, Dissolved	0.007	0.001	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Arsenic, Dissolved	0.004	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Arsenic, Dissolved	0.007	0.001	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Arsenic, Dissolved	0.007	0.001	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Arsenic, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Arsenic, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Arsenic, Dissolved	0.001	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Arsenic, Dissolved	0.003	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Arsenic, Dissolved	0.003	0.001	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Arsenic, Dissolved	0.002	0.001	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Arsenic, Dissolved	0.003	0.001	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Arsenic, Dissolved	0.003	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Arsenic, Dissolved	0.003	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Arsenic, Dissolved	0.003	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Arsenic, Dissolved	0.003	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8

SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Arsenic, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Arsenic, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Arsenic, Total Recoverable	0.004	0.001	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Arsenic, Total Recoverable	0.005	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Arsenic, Total Recoverable	0.008	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Arsenic, Total Recoverable	0.005	0.001	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Arsenic, Total Recoverable	0.004	0.001	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Arsenic, Total Recoverable	0.005	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Arsenic, Total Recoverable	0.005	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Arsenic, Total Recoverable	0.005	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Arsenic, Total Recoverable	0.008	0.001	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Arsenic, Total Recoverable	0.007	0.001	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Arsenic, Total Recoverable	0.007	0.001	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Arsenic, Total Recoverable	0.007	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Arsenic, Total Recoverable	0.008	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Arsenic, Total Recoverable	0.007	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Arsenic, Total Recoverable	0.004	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Arsenic, Total Recoverable	0.007	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Arsenic, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Arsenic, Total Recoverable	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Arsenic, Total Recoverable	0.005	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Arsenic, Total Recoverable	0.005	0.001	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Arsenic, Total Recoverable	0.005	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Arsenic, Total Recoverable	0.007	0.001	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Arsenic, Total Recoverable	0.01	0.001	mg/L	E200.8

SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Arsenic, Total Recoverable	0.01	0.001	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Arsenic, Total Recoverable	0.009	0.001	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Arsenic, Total Recoverable	0.008	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Arsenic, Total Recoverable	0.009	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Arsenic, Total Recoverable	0.003	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Arsenic, Total Recoverable	0.007	0.001	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Arsenic, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Arsenic, Total Recoverable	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Arsenic, Total Recoverable	0.003	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Arsenic, Total Recoverable	0.005	0.001	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Arsenic, Total Recoverable	0.007	0.001	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Arsenic, Total Recoverable	0.007	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Arsenic, Total Recoverable	0.008	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Arsenic, Total Recoverable	0.008	0.001	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Arsenic, Total Recoverable	0.007	0.001	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Arsenic, Total Recoverable	0.008	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Arsenic, Total Recoverable	0.007	0.001	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Arsenic, Total Recoverable	0.004	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Arsenic, Total Recoverable	0.007	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Arsenic, Total Recoverable	0.007	0.001	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Arsenic, Total Recoverable	0.007	0.001	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Arsenic, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Arsenic, Total	ND	0.001	mg/L	E200.8

					Recoverable				
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Arsenic, Total Recoverable	0.003	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Arsenic, Total Recoverable	0.005	0.001	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Arsenic, Total Recoverable	0.004	0.001	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Arsenic, Total Recoverable	0.005	0.001	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Arsenic, Total Recoverable	0.007	0.001	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Arsenic, Total Recoverable	0.004	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Arsenic, Total Recoverable	0.006	0.001	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Arsenic, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Arsenic, Total Recoverable	ND	0.001	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Barium, Dissolved	0.039	0.003	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Barium, Dissolved	0.039	0.003	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Barium, Dissolved	0.041	0.003	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Barium, Dissolved	0.037	0.003	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Barium, Dissolved	0.035	0.003	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Barium, Dissolved	0.037	0.003	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Barium, Dissolved	0.038	0.003	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Barium, Dissolved	0.041	0.003	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Barium, Dissolved	0.041	0.003	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Barium, Dissolved	0.035	0.003	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Barium, Dissolved	0.034	0.003	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Barium, Dissolved	0.035	0.003	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Barium, Dissolved	0.032	0.003	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Barium, Dissolved	0.033	0.003	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Barium, Dissolved	0.032	0.003	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Barium, Dissolved	0.026	0.003	mg/L	E200.8

SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Barium, Dissolved	0.034	0.003	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Barium, Dissolved	0.033	0.003	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Barium, Dissolved	0.033	0.003	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Barium, Dissolved	ND	0.003	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Barium, Dissolved	ND	0.003	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Barium, Dissolved	0.032	0.003	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Barium, Dissolved	0.036	0.003	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Barium, Dissolved	0.033	0.003	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Barium, Dissolved	0.033	0.003	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Barium, Dissolved	0.034	0.003	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Barium, Dissolved	0.032	0.003	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Barium, Dissolved	0.033	0.003	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Barium, Dissolved	0.038	0.003	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Barium, Dissolved	0.037	0.003	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Barium, Dissolved	0.037	0.003	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Barium, Dissolved	0.029	0.003	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Barium, Dissolved	0.028	0.003	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Barium, Dissolved	0.031	0.003	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Barium, Dissolved	0.026	0.003	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Barium, Dissolved	0.019	0.003	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Barium, Dissolved	0.026	0.003	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Barium, Dissolved	0.026	0.003	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Barium, Dissolved	0.026	0.003	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Barium, Dissolved	0.027	0.003	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Barium, Dissolved	ND	0.003	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Barium, Dissolved	ND	0.003	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Barium, Dissolved	0.058	0.003	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Barium, Dissolved	0.053	0.003	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Barium, Dissolved	0.046	0.003	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Barium, Dissolved	0.04	0.003	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Barium, Dissolved	0.04	0.003	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Barium, Dissolved	0.041	0.003	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Barium, Dissolved	0.043	0.003	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Barium, Dissolved	0.042	0.003	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Barium, Dissolved	0.046	0.003	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Barium, Dissolved	0.046	0.003	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Barium, Dissolved	0.038	0.003	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Barium, Dissolved	0.038	0.003	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Barium, Dissolved	0.035	0.003	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Barium, Dissolved	0.033	0.003	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Barium, Dissolved	0.032	0.003	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Barium, Dissolved	0.024	0.003	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Barium, Dissolved	0.034	0.003	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Barium, Dissolved	0.034	0.003	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Barium, Dissolved	0.035	0.003	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Barium, Dissolved	ND	0.003	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Barium, Dissolved	ND	0.003	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Barium, Dissolved	0.051	0.003	mg/L	E200.8

SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Barium, Dissolved	0.06	0.003	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Barium, Dissolved	0.053	0.003	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Barium, Dissolved	0.047	0.003	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Barium, Dissolved	0.044	0.003	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Barium, Dissolved	0.044	0.003	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Barium, Dissolved	0.043	0.003	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Barium, Dissolved	0.043	0.003	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Barium, Dissolved	0.045	0.003	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Barium, Dissolved	0.045	0.003	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Barium, Dissolved	0.044	0.003	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Barium, Dissolved	0.045	0.003	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Barium, Dissolved	0.045	0.003	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Barium, Dissolved	0.043	0.003	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Barium, Dissolved	0.038	0.003	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Barium, Dissolved	0.022	0.003	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Barium, Dissolved	0.039	0.003	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Barium, Dissolved	0.04	0.003	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Barium, Dissolved	0.041	0.003	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Barium, Dissolved	ND	0.003	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Barium, Dissolved	ND	0.003	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Barium, Total Recoverable	0.043	0.003	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Barium, Total Recoverable	0.043	0.003	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Barium, Total Recoverable	0.041	0.003	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Barium, Total Recoverable	0.036	0.003	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Barium, Total Recoverable	0.033	0.003	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Barium, Total Recoverable	0.037	0.003	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Barium, Total Recoverable	0.037	0.003	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Barium, Total Recoverable	0.037	0.003	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Barium, Total Recoverable	0.041	0.003	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Barium, Total Recoverable	0.041	0.003	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Barium, Total Recoverable	0.037	0.003	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Barium, Total Recoverable	0.037	0.003	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Barium, Total Recoverable	0.036	0.003	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Barium, Total Recoverable	0.037	0.003	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Barium, Total Recoverable	0.033	0.003	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Barium, Total Recoverable	0.024	0.003	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Barium, Total Recoverable	0.033	0.003	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Barium, Total Recoverable	0.034	0.003	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Barium, Total Recoverable	0.036	0.003	mg/L	E200.8

	Field Blank	H15030394-010	26-Mar-15	18:00	Barium, Total Recoverable	ND	0.003	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Barium, Total Recoverable	ND	0.003	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Barium, Total Recoverable	0.032	0.003	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Barium, Total Recoverable	0.039	0.003	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Barium, Total Recoverable	0.037	0.003	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Barium, Total Recoverable	0.034	0.003	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Barium, Total Recoverable	0.036	0.003	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Barium, Total Recoverable	0.034	0.003	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Barium, Total Recoverable	0.034	0.003	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Barium, Total Recoverable	0.04	0.003	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Barium, Total Recoverable	0.042	0.003	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Barium, Total Recoverable	0.043	0.003	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Barium, Total Recoverable	0.035	0.003	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Barium, Total Recoverable	0.032	0.003	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Barium, Total Recoverable	0.035	0.003	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Barium, Total Recoverable	0.028	0.003	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Barium, Total Recoverable	0.02	0.003	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Barium, Total Recoverable	0.027	0.003	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Barium, Total Recoverable	0.029	0.003	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Barium, Total Recoverable	0.029	0.003	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Barium, Total Recoverable	0.031	0.003	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Barium, Total Recoverable	ND	0.003	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Barium, Total Recoverable	ND	0.003	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Barium, Total Recoverable	0.057	0.003	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Barium, Total Recoverable	0.055	0.003	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Barium, Total Recoverable	0.044	0.003	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Barium, Total Recoverable	0.04	0.003	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Barium, Total Recoverable	0.042	0.003	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Barium, Total Recoverable	0.041	0.003	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Barium, Total Recoverable	0.042	0.003	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Barium, Total Recoverable	0.043	0.003	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Barium, Total Recoverable	0.049	0.003	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Barium, Total	0.049	0.003	mg/L	E200.8

					Recoverable				
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Barium, Total Recoverable	0.044	0.003	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Barium, Total Recoverable	0.043	0.003	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Barium, Total Recoverable	0.036	0.003	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Barium, Total Recoverable	0.034	0.003	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Barium, Total Recoverable	0.035	0.003	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Barium, Total Recoverable	0.023	0.003	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Barium, Total Recoverable	0.036	0.003	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Barium, Total Recoverable	0.035	0.003	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Barium, Total Recoverable	0.037	0.003	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Barium, Total Recoverable	ND	0.003	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Barium, Total Recoverable	ND	0.003	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Barium, Total Recoverable	0.056	0.003	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Barium, Total Recoverable	0.069	0.003	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Barium, Total Recoverable	0.063	0.003	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Barium, Total Recoverable	0.052	0.003	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Barium, Total Recoverable	0.054	0.003	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Barium, Total Recoverable	0.057	0.003	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Barium, Total Recoverable	0.058	0.003	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Barium, Total Recoverable	0.06	0.003	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Barium, Total Recoverable	0.051	0.003	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Barium, Total Recoverable	0.05	0.003	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Barium, Total Recoverable	0.056	0.003	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Barium, Total Recoverable	0.055	0.003	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Barium, Total Recoverable	0.053	0.003	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Barium, Total Recoverable	0.045	0.003	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Barium, Total Recoverable	0.039	0.003	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Barium, Total Recoverable	0.022	0.003	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Barium, Total Recoverable	0.042	0.003	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Barium, Total Recoverable	0.041	0.003	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Barium, Total Recoverable	0.043	0.003	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Barium, Total Recoverable	ND	0.003	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Barium, Total Recoverable	ND	0.003	mg/L	E200.8

SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8

SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8

SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Beryllium, Total	ND	0.0008	mg/L	E200.8

					Recoverable				
	Field Blank	H15050235-002	15-May-15	15:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8

SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Beryllium, Total Recoverable	ND	0.0008	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Bicarbonate Alkalinity as HCO3	91	4	mg/L	A2320 B
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Bicarbonate Alkalinity as HCO3	97	4	mg/L	A2320 B
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Bicarbonate Alkalinity as HCO3	66	4	mg/L	A2320 B
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Bicarbonate Alkalinity as HCO3	99	4	mg/L	A2320 B
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Bicarbonate Alkalinity as HCO3	120	4	mg/L	A2320 B
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Bicarbonate Alkalinity as HCO3	120	4	mg/L	A2320 B
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Bicarbonate Alkalinity as HCO3	120	4	mg/L	A2320 B
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Bicarbonate Alkalinity as HCO3	120	4	mg/L	A2320 B
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Bicarbonate Alkalinity as HCO3	95	4	mg/L	A2320 B
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
	Field Blank	H15030394-010	26-Mar-15	18:00	Bicarbonate Alkalinity as HCO3	ND	4	mg/L	A2320 B
	Field Blank	H15030393-003	27-Mar-15	17:00	Bicarbonate Alkalinity as HCO3	ND	4	mg/L	A2320 B
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Bicarbonate Alkalinity	89	4	mg/L	A2320 B

					as HCO3				
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Bicarbonate Alkalinity as HCO3	100	4	mg/L	A2320 B
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Bicarbonate Alkalinity as HCO3	100	4	mg/L	A2320 B
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Bicarbonate Alkalinity as HCO3	120	4	mg/L	A2320 B
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Bicarbonate Alkalinity as HCO3	100	4	mg/L	A2320 B
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Bicarbonate Alkalinity as HCO3	99	4	mg/L	A2320 B
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Bicarbonate Alkalinity as HCO3	100	4	mg/L	A2320 B
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Bicarbonate Alkalinity as HCO3	95	4	mg/L	A2320 B
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Bicarbonate Alkalinity as HCO3	88	4	mg/L	A2320 B
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Bicarbonate Alkalinity as HCO3	100	4	mg/L	A2320 B
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
	Field Blank	H15050235-011	14-May-15	16:30	Bicarbonate Alkalinity as HCO3	ND	4	mg/L	A2320 B
	Field Blank	H15050235-002	15-May-15	15:30	Bicarbonate Alkalinity as HCO3	ND	4	mg/L	A2320 B
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Bicarbonate Alkalinity as HCO3	120	4	mg/L	A2320 B
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Bicarbonate Alkalinity as HCO3	140	4	mg/L	A2320 B
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Bicarbonate Alkalinity as HCO3	150	4	mg/L	A2320 B
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Bicarbonate Alkalinity as HCO3	120	4	mg/L	A2320 B
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Bicarbonate Alkalinity as HCO3	120	4	mg/L	A2320 B

SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Bicarbonate Alkalinity as HCO3	120	4	mg/L	A2320 B
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Bicarbonate Alkalinity as HCO3	140	4	mg/L	A2320 B
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
	Field Blank	H15090206-017	8-Sep-15	9:30	Bicarbonate Alkalinity as HCO3	ND	4	mg/L	A2320 B
	Field Blank	H15090206-009	9-Sep-15	8:45	Bicarbonate Alkalinity as HCO3	ND	4	mg/L	A2320 B
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Bicarbonate Alkalinity as HCO3	150	4	mg/L	A2320 B
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Bicarbonate Alkalinity as HCO3	150	4	mg/L	A2320 B
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Bicarbonate Alkalinity as HCO3	140	4	mg/L	A2320 B
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Bicarbonate Alkalinity as HCO3	150	4	mg/L	A2320 B
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Bicarbonate Alkalinity as HCO3	150	4	mg/L	A2320 B
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Bicarbonate Alkalinity as HCO3	150	4	mg/L	A2320 B
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Bicarbonate Alkalinity as HCO3	150	4	mg/L	A2320 B
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Bicarbonate Alkalinity as HCO3	150	4	mg/L	A2320 B
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Bicarbonate Alkalinity as HCO3	150	4	mg/L	A2320 B
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Bicarbonate Alkalinity as HCO3	140	4	mg/L	A2320 B
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Bicarbonate Alkalinity as HCO3	140	4	mg/L	A2320 B
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Bicarbonate Alkalinity as HCO3	140	4	mg/L	A2320 B
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Bicarbonate Alkalinity as HCO3	150	4	mg/L	A2320 B
	Field Blank	H15120093-018	3-Dec-15	9:30	Bicarbonate Alkalinity as HCO3	ND	4	mg/L	A2320 B
	Field Blank	H15120093-002	4-Dec-15	15:00	Bicarbonate Alkalinity as HCO3	ND	4	mg/L	A2320 B
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Boron, Dissolved	ND	0.1	mg/L	E200.7

SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
	Field Blank	H15030394-010	26-Mar-15	18:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
	Field Blank	H15030393-003	27-Mar-15	17:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
	Field Blank	H15050235-011	14-May-15	16:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
	Field Blank	H15050235-002	15-May-15	15:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Boron, Dissolved	ND	0.1	mg/L	E200.7

SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
	Field Blank	H15090206-017	8-Sep-15	9:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
	Field Blank	H15090206-009	9-Sep-15	8:45	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Boron, Dissolved	0.1	0.1	mg/L	E200.7
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Boron, Dissolved	0.1	0.1	mg/L	E200.7
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Boron, Dissolved	0.1	0.1	mg/L	E200.7
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
	Field Blank	H15120093-018	3-Dec-15	9:30	Boron, Dissolved	ND	0.1	mg/L	E200.7
	Field Blank	H15120093-002	4-Dec-15	15:00	Boron, Dissolved	ND	0.1	mg/L	E200.7
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7

SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
	Field Blank	H15030394-010	26-Mar-15	18:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
	Field Blank	H15030393-003	27-Mar-15	17:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
	Field Blank	H15050235-011	14-May-15	16:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
	Field Blank	H15050235-002	15-May-15	15:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Boron, Total	ND	0.1	mg/L	E200.7

					Recoverable				
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
	Field Blank	H15090206-017	8-Sep-15	9:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
	Field Blank	H15090206-009	9-Sep-15	8:45	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Boron, Total Recoverable	0.2	0.1	mg/L	E200.7
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Boron, Total Recoverable	0.1	0.1	mg/L	E200.7
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Boron, Total Recoverable	0.1	0.1	mg/L	E200.7
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7

SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
	Field Blank	H15120093-018	3-Dec-15	9:30	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
	Field Blank	H15120093-002	4-Dec-15	15:00	Boron, Total Recoverable	ND	0.1	mg/L	E200.7
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Cadmium, Dissolved	0.00004	0.00003	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Cadmium, Dissolved	0.0001	0.00003	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Cadmium, Dissolved	0.00018	0.00003	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Cadmium, Dissolved	0.00021	0.00003	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Cadmium, Dissolved	0.00023	0.00003	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Cadmium, Dissolved	0.00015	0.00003	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Cadmium, Dissolved	0.00011	0.00003	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Cadmium, Dissolved	0.0001	0.00003	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Cadmium, Dissolved	0.00009	0.00003	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Cadmium, Dissolved	0.0001	0.00003	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Cadmium, Dissolved	0.00008	0.00003	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Cadmium, Dissolved	0.00013	0.00003	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Cadmium, Dissolved	0.00022	0.00003	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Cadmium, Dissolved	0.00018	0.00003	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Cadmium, Dissolved	0.00003	0.00003	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Cadmium, Dissolved	0.00012	0.00003	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Cadmium, Dissolved	0.00015	0.00003	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Cadmium, Dissolved	0.00017	0.00003	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Cadmium, Dissolved	0.00023	0.00003	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Cadmium, Dissolved	0.00019	0.00003	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Cadmium, Dissolved	0.00019	0.00003	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Cadmium, Dissolved	0.00015	0.00003	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Cadmium, Dissolved	0.00012	0.00003	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Cadmium, Dissolved	0.00022	0.00003	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Cadmium, Dissolved	0.0001	0.00003	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8

SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Cadmium, Dissolved	0.00014	0.00003	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Cadmium, Dissolved	0.00014	0.00003	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Cadmium, Dissolved	0.00013	0.00003	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Cadmium, Dissolved	0.00013	0.00003	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Cadmium, Dissolved	0.00004	0.00003	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Cadmium, Dissolved	0.00004	0.00003	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Cadmium, Dissolved	0.00005	0.00003	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Cadmium, Dissolved	0.00007	0.00003	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Cadmium, Dissolved	0.00009	0.00003	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Cadmium, Dissolved	0.00009	0.00003	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Cadmium, Dissolved	0.00009	0.00003	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Cadmium, Dissolved	0.00009	0.00003	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Cadmium, Dissolved	0.00009	0.00003	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Cadmium, Dissolved	0.00006	0.00003	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Cadmium, Dissolved	0.00006	0.00003	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Cadmium, Dissolved	0.00006	0.00003	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Cadmium, Dissolved	0.00004	0.00003	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Cadmium, Dissolved	0.00004	0.00003	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Cadmium, Dissolved	0.00008	0.00003	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Cadmium, Dissolved	0.00016	0.00003	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Cadmium, Dissolved	0.00012	0.00003	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Cadmium, Dissolved	0.00004	0.00003	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Cadmium, Dissolved	0.00007	0.00003	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Cadmium, Dissolved	0.00007	0.00003	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Cadmium, Dissolved	0.00007	0.00003	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Cadmium, Dissolved	0.00013	0.00003	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Cadmium, Dissolved	0.00016	0.00003	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Cadmium, Dissolved	0.00013	0.00003	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Cadmium, Dissolved	0.00012	0.00003	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Cadmium, Dissolved	0.0001	0.00003	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Cadmium, Dissolved	0.00023	0.00003	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Cadmium, Dissolved	0.00019	0.00003	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Cadmium, Dissolved	0.00023	0.00003	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Cadmium, Dissolved	0.0003	0.00003	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Cadmium, Dissolved	0.00029	0.00003	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8

SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Cadmium, Total Recoverable	ND	0.00003	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Cadmium, Total Recoverable	ND	0.00003	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Cadmium, Total Recoverable	0.00006	0.00003	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Cadmium, Total Recoverable	0.00008	0.00003	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Cadmium, Total Recoverable	0.00008	0.00003	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Cadmium, Total Recoverable	0.00022	0.00003	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Cadmium, Total Recoverable	0.00034	0.00003	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Cadmium, Total Recoverable	0.00033	0.00003	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Cadmium, Total Recoverable	0.00044	0.00003	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Cadmium, Total Recoverable	0.00034	0.00003	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Cadmium, Total Recoverable	0.00032	0.00003	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Cadmium, Total Recoverable	0.00032	0.00003	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Cadmium, Total Recoverable	0.00031	0.00003	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Cadmium, Total Recoverable	0.00039	0.00003	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Cadmium, Total Recoverable	0.00026	0.00003	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Cadmium, Total Recoverable	ND	0.00003	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Cadmium, Total Recoverable	0.00032	0.00003	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Cadmium, Total Recoverable	0.00033	0.00003	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Cadmium, Total Recoverable	0.00036	0.00003	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Cadmium, Total Recoverable	ND	0.00003	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Cadmium, Total Recoverable	ND	0.00003	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Cadmium, Total Recoverable	0.00004	0.00003	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Cadmium, Total Recoverable	0.00009	0.00003	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Cadmium, Total Recoverable	0.00011	0.00003	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Cadmium, Total Recoverable	0.00009	0.00003	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Cadmium, Total Recoverable	0.0002	0.00003	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Cadmium, Total Recoverable	0.00031	0.00003	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Cadmium, Total Recoverable	0.00033	0.00003	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Cadmium, Total Recoverable	0.00048	0.00003	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Cadmium, Total Recoverable	0.00038	0.00003	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Cadmium, Total Recoverable	0.00041	0.00003	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Cadmium, Total Recoverable	0.00039	0.00003	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Cadmium, Total	0.00034	0.00003	mg/L	E200.8

					Recoverable				
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Cadmium, Total Recoverable	0.0004	0.00003	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Cadmium, Total Recoverable	0.00022	0.00003	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Cadmium, Total Recoverable	ND	0.00003	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Cadmium, Total Recoverable	0.00024	0.00003	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Cadmium, Total Recoverable	0.00031	0.00003	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Cadmium, Total Recoverable	0.0003	0.00003	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Cadmium, Total Recoverable	0.00033	0.00003	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Cadmium, Total Recoverable	ND	0.00003	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Cadmium, Total Recoverable	ND	0.00003	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Cadmium, Total Recoverable	ND	0.00003	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Cadmium, Total Recoverable	0.00008	0.00003	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Cadmium, Total Recoverable	0.00008	0.00003	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Cadmium, Total Recoverable	0.00008	0.00003	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Cadmium, Total Recoverable	0.00011	0.00003	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Cadmium, Total Recoverable	0.00015	0.00003	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Cadmium, Total Recoverable	0.00017	0.00003	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Cadmium, Total Recoverable	0.00018	0.00003	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Cadmium, Total Recoverable	0.00027	0.00003	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Cadmium, Total Recoverable	0.00024	0.00003	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Cadmium, Total Recoverable	0.0003	0.00003	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Cadmium, Total Recoverable	0.0003	0.00003	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Cadmium, Total Recoverable	0.00015	0.00003	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Cadmium, Total Recoverable	0.00013	0.00003	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Cadmium, Total Recoverable	0.00012	0.00003	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Cadmium, Total Recoverable	ND	0.00003	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Cadmium, Total Recoverable	0.00014	0.00003	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Cadmium, Total Recoverable	0.00023	0.00003	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Cadmium, Total Recoverable	0.00024	0.00003	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Cadmium, Total Recoverable	ND	0.00003	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Cadmium, Total Recoverable	ND	0.00003	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Cadmium, Total Recoverable	ND	0.00003	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Cadmium, Total Recoverable	0.00018	0.00003	mg/L	E200.8

SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Cadmium, Total Recoverable	0.00019	0.00003	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Cadmium, Total Recoverable	0.00013	0.00003	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Cadmium, Total Recoverable	0.00027	0.00003	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Cadmium, Total Recoverable	0.00057	0.00003	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Cadmium, Total Recoverable	0.00055	0.00003	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Cadmium, Total Recoverable	0.00056	0.00003	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Cadmium, Total Recoverable	0.00039	0.00003	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Cadmium, Total Recoverable	0.00034	0.00003	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Cadmium, Total Recoverable	0.00049	0.00003	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Cadmium, Total Recoverable	0.00046	0.00003	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Cadmium, Total Recoverable	0.00044	0.00003	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Cadmium, Total Recoverable	0.00029	0.00003	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Cadmium, Total Recoverable	0.00022	0.00003	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Cadmium, Total Recoverable	ND	0.00003	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Cadmium, Total Recoverable	0.00035	0.00003	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Cadmium, Total Recoverable	0.00032	0.00003	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Cadmium, Total Recoverable	0.00036	0.00003	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Cadmium, Total Recoverable	ND	0.00003	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Cadmium, Total Recoverable	ND	0.00003	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Calcium, Total Recoverable	28	1	mg/L	E200.7
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Calcium, Total Recoverable	28	1	mg/L	E200.7
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Calcium, Total Recoverable	44	1	mg/L	E200.7
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Calcium, Total Recoverable	43	1	mg/L	E200.7
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Calcium, Total Recoverable	41	1	mg/L	E200.7
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Calcium, Total Recoverable	43	1	mg/L	E200.7
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Calcium, Total Recoverable	46	1	mg/L	E200.7
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Calcium, Total Recoverable	46	1	mg/L	E200.7
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Calcium, Total Recoverable	61	1	mg/L	E200.7
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Calcium, Total Recoverable	47	1	mg/L	E200.7
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Calcium, Total Recoverable	48	1	mg/L	E200.7
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Calcium, Total Recoverable	48	1	mg/L	E200.7
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Calcium, Total Recoverable	49	1	mg/L	E200.7
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Calcium, Total	49	1	mg/L	E200.7

					Recoverable				
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Calcium, Total Recoverable	44	1	mg/L	E200.7
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Calcium, Total Recoverable	30	1	mg/L	E200.7
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Calcium, Total Recoverable	44	1	mg/L	E200.7
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Calcium, Total Recoverable	45	1	mg/L	E200.7
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Calcium, Total Recoverable	46	1	mg/L	E200.7
	Field Blank	H15030394-010	26-Mar-15	18:00	Calcium, Total Recoverable	ND	1	mg/L	E200.7
	Field Blank	H15030393-003	27-Mar-15	17:00	Calcium, Total Recoverable	ND	1	mg/L	E200.7
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Calcium, Total Recoverable	25	1	mg/L	E200.7
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Calcium, Total Recoverable	29	1	mg/L	E200.7
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Calcium, Total Recoverable	39	1	mg/L	E200.7
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Calcium, Total Recoverable	38	1	mg/L	E200.7
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Calcium, Total Recoverable	41	1	mg/L	E200.7
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Calcium, Total Recoverable	42	1	mg/L	E200.7
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Calcium, Total Recoverable	42	1	mg/L	E200.7
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Calcium, Total Recoverable	54	1	mg/L	E200.7
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Calcium, Total Recoverable	48	1	mg/L	E200.7
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Calcium, Total Recoverable	49	1	mg/L	E200.7
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Calcium, Total Recoverable	47	1	mg/L	E200.7
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Calcium, Total Recoverable	47	1	mg/L	E200.7
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Calcium, Total Recoverable	51	1	mg/L	E200.7
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Calcium, Total Recoverable	40	1	mg/L	E200.7
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Calcium, Total Recoverable	29	1	mg/L	E200.7
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Calcium, Total Recoverable	40	1	mg/L	E200.7
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Calcium, Total Recoverable	41	1	mg/L	E200.7
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Calcium, Total Recoverable	42	1	mg/L	E200.7
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Calcium, Total Recoverable	43	1	mg/L	E200.7
	Field Blank	H15050235-011	14-May-15	16:30	Calcium, Total Recoverable	ND	1	mg/L	E200.7
	Field Blank	H15050235-002	15-May-15	15:30	Calcium, Total Recoverable	ND	1	mg/L	E200.7
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Calcium, Total Recoverable	34	1	mg/L	E200.7
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Calcium, Total Recoverable	40	1	mg/L	E200.7
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Calcium, Total Recoverable	54	1	mg/L	E200.7
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Calcium, Total Recoverable	48	1	mg/L	E200.7

SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Calcium, Total Recoverable	49	1	mg/L	E200.7
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Calcium, Total Recoverable	52	1	mg/L	E200.7
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Calcium, Total Recoverable	52	1	mg/L	E200.7
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Calcium, Total Recoverable	51	1	mg/L	E200.7
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Calcium, Total Recoverable	63	1	mg/L	E200.7
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Calcium, Total Recoverable	62	1	mg/L	E200.7
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Calcium, Total Recoverable	59	1	mg/L	E200.7
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Calcium, Total Recoverable	59	1	mg/L	E200.7
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Calcium, Total Recoverable	57	1	mg/L	E200.7
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Calcium, Total Recoverable	53	1	mg/L	E200.7
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Calcium, Total Recoverable	52	1	mg/L	E200.7
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Calcium, Total Recoverable	38	1	mg/L	E200.7
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Calcium, Total Recoverable	54	1	mg/L	E200.7
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Calcium, Total Recoverable	56	1	mg/L	E200.7
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Calcium, Total Recoverable	55	1	mg/L	E200.7
	Field Blank	H15090206-017	8-Sep-15	9:30	Calcium, Total Recoverable	ND	1	mg/L	E200.7
	Field Blank	H15090206-009	9-Sep-15	8:45	Calcium, Total Recoverable	ND	1	mg/L	E200.7
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Calcium, Total Recoverable	33	1	mg/L	E200.7
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Calcium, Total Recoverable	38	1	mg/L	E200.7
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Calcium, Total Recoverable	55	1	mg/L	E200.7
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Calcium, Total Recoverable	48	1	mg/L	E200.7
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Calcium, Total Recoverable	49	1	mg/L	E200.7
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Calcium, Total Recoverable	52	1	mg/L	E200.7
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Calcium, Total Recoverable	52	1	mg/L	E200.7
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Calcium, Total Recoverable	51	1	mg/L	E200.7
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Calcium, Total Recoverable	65	1	mg/L	E200.7
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Calcium, Total Recoverable	63	1	mg/L	E200.7
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Calcium, Total Recoverable	66	1	mg/L	E200.7
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Calcium, Total Recoverable	65	1	mg/L	E200.7
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Calcium, Total Recoverable	64	1	mg/L	E200.7
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Calcium, Total Recoverable	65	1	mg/L	E200.7
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Calcium, Total Recoverable	58	1	mg/L	E200.7
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Calcium, Total	37	1	mg/L	E200.7

					Recoverable				
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Calcium, Total Recoverable	57	1	mg/L	E200.7
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Calcium, Total Recoverable	59	1	mg/L	E200.7
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Calcium, Total Recoverable	59	1	mg/L	E200.7
	Field Blank	H15120093-018	3-Dec-15	9:30	Calcium, Total Recoverable	ND	1	mg/L	E200.7
	Field Blank	H15120093-002	4-Dec-15	15:00	Calcium, Total Recoverable	ND	1	mg/L	E200.7
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Chloride	10	1	mg/L	E300.0
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Chloride	10	1	mg/L	E300.0
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Chloride	14	1	mg/L	E300.0
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Chloride	22	1	mg/L	E300.0
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Chloride	25	1	mg/L	E300.0
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Chloride	26	1	mg/L	E300.0
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Chloride	26	1	mg/L	E300.0
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Chloride	26	1	mg/L	E300.0
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Chloride	50	1	mg/L	E300.0
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Chloride	34	1	mg/L	E300.0
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Chloride	34	1	mg/L	E300.0
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Chloride	34	1	mg/L	E300.0
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Chloride	34	1	mg/L	E300.0
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Chloride	36	1	mg/L	E300.0
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Chloride	25	1	mg/L	E300.0
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Chloride	ND	1	mg/L	E300.0
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Chloride	25	1	mg/L	E300.0
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Chloride	25	1	mg/L	E300.0
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Chloride	25	1	mg/L	E300.0
	Field Blank	H15030394-010	26-Mar-15	18:00	Chloride	ND	1	mg/L	E300.0
	Field Blank	H15030393-003	27-Mar-15	17:00	Chloride	ND	1	mg/L	E300.0
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Chloride	8	1	mg/L	E300.0
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Chloride	12	1	mg/L	E300.0
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Chloride	17	1	mg/L	E300.0
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Chloride	22	1	mg/L	E300.0
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Chloride	24	1	mg/L	E300.0
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Chloride	22	1	mg/L	E300.0
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Chloride	23	1	mg/L	E300.0
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Chloride	43	1	mg/L	E300.0
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Chloride	35	1	mg/L	E300.0
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Chloride	34	1	mg/L	E300.0
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Chloride	32	1	mg/L	E300.0
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Chloride	32	1	mg/L	E300.0
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Chloride	38	1	mg/L	E300.0
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Chloride	18	1	mg/L	E300.0
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Chloride	ND	1	mg/L	E300.0
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Chloride	17	1	mg/L	E300.0
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Chloride	17	1	mg/L	E300.0
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Chloride	17	1	mg/L	E300.0
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Chloride	17	1	mg/L	E300.0

	Field Blank	H15050235-011	14-May-15	16:30	Chloride	ND	1	mg/L	E300.0
	Field Blank	H15050235-002	15-May-15	15:30	Chloride	ND	1	mg/L	E300.0
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Chloride	11	1	mg/L	E300.0
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Chloride	18	1	mg/L	E300.0
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Chloride	28	1	mg/L	E300.0
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Chloride	32	1	mg/L	E300.0
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Chloride	33	1	mg/L	E300.0
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Chloride	32	1	mg/L	E300.0
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Chloride	32	1	mg/L	E300.0
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Chloride	32	1	mg/L	E300.0
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Chloride	53	1	mg/L	E300.0
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Chloride	53	1	mg/L	E300.0
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Chloride	47	1	mg/L	E300.0
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Chloride	48	1	mg/L	E300.0
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Chloride	47	1	mg/L	E300.0
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Chloride	33	1	mg/L	E300.0
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Chloride	33	1	mg/L	E300.0
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Chloride	1	1	mg/L	E300.0
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Chloride	32	1	mg/L	E300.0
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Chloride	34	1	mg/L	E300.0
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Chloride	33	1	mg/L	E300.0
	Field Blank	H15090206-017	8-Sep-15	9:30	Chloride	ND	1	mg/L	E300.0
	Field Blank	H15090206-009	9-Sep-15	8:45	Chloride	ND	1	mg/L	E300.0
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Chloride	15	1	mg/L	E300.0
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Chloride	95	1	mg/L	E300.0
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Chloride	82	1	mg/L	E300.0
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Chloride	61	1	mg/L	E300.0
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Chloride	35	1	mg/L	E300.0
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Chloride	32	1	mg/L	E300.0
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Chloride	32	1	mg/L	E300.0
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Chloride	32	1	mg/L	E300.0
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Chloride	56	1	mg/L	E300.0
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Chloride	52	1	mg/L	E300.0
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Chloride	49	1	mg/L	E300.0
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Chloride	49	1	mg/L	E300.0
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Chloride	49	1	mg/L	E300.0
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Chloride	47	1	mg/L	E300.0
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Chloride	36	1	mg/L	E300.0
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Chloride	1	1	mg/L	E300.0
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Chloride	36	1	mg/L	E300.0
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Chloride	37	1	mg/L	E300.0
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Chloride	35	1	mg/L	E300.0
	Field Blank	H15120093-018	3-Dec-15	9:30	Chloride	ND	1	mg/L	E300.0
	Field Blank	H15120093-002	4-Dec-15	15:00	Chloride	ND	1	mg/L	E300.0
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8

SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8

SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Chromium, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Chromium, Dissolved	ND	0.01	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8

SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Chromium, Total	ND	0.01	mg/L	E200.8

					Recoverable				
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8

SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Chromium, Total Recoverable	ND	0.01	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8

SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Cobalt, Dissolved	ND	0.01	mg/L	E200.8

SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Cobalt, Total	ND	0.01	mg/L	E200.8

					Recoverable				
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8

SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Cobalt, Total Recoverable	ND	0.01	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Copper, Dissolved	0.004	0.001	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Copper, Dissolved	0.003	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Copper, Dissolved	0.004	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Copper, Dissolved	0.004	0.001	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Copper, Dissolved	0.006	0.001	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Copper, Dissolved	0.009	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Copper, Dissolved	0.025	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Copper, Dissolved	0.018	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Copper, Dissolved	0.016	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Copper, Dissolved	0.011	0.001	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Copper, Dissolved	0.013	0.001	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Copper, Dissolved	0.013	0.001	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Copper, Dissolved	0.012	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Copper, Dissolved	0.013	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Copper, Dissolved	0.009	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Copper, Dissolved	0.001	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Copper, Dissolved	0.01	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Copper, Dissolved	0.012	0.001	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Copper, Dissolved	0.012	0.001	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Copper, Dissolved	ND	0.001	mg/L	E200.8

	Field Blank	H15030393-003	27-Mar-15	17:00	Copper, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Copper, Dissolved	0.004	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Copper, Dissolved	0.003	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Copper, Dissolved	0.004	0.001	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Copper, Dissolved	0.006	0.001	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Copper, Dissolved	0.008	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Copper, Dissolved	0.015	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Copper, Dissolved	0.015	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Copper, Dissolved	0.014	0.001	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Copper, Dissolved	0.013	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Copper, Dissolved	0.012	0.001	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Copper, Dissolved	0.014	0.001	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Copper, Dissolved	0.012	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Copper, Dissolved	0.013	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Copper, Dissolved	0.007	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Copper, Dissolved	0.002	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Copper, Dissolved	0.008	0.001	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Copper, Dissolved	0.01	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Copper, Dissolved	0.01	0.001	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Copper, Dissolved	0.01	0.001	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Copper, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Copper, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Copper, Dissolved	0.001	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Copper, Dissolved	0.002	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Copper, Dissolved	0.003	0.001	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Copper, Dissolved	0.005	0.001	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Copper, Dissolved	0.005	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Copper, Dissolved	0.009	0.001	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Copper, Dissolved	0.009	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Copper, Dissolved	0.008	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Copper, Dissolved	0.008	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Copper, Dissolved	0.007	0.001	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Copper, Dissolved	0.007	0.001	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Copper, Dissolved	0.007	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Copper, Dissolved	0.007	0.001	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Copper, Dissolved	0.005	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Copper, Dissolved	0.005	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Copper, Dissolved	ND	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Copper, Dissolved	0.006	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Copper, Dissolved	0.008	0.001	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Copper, Dissolved	0.008	0.001	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Copper, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Copper, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Copper, Dissolved	ND	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Copper, Dissolved	0.001	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Copper, Dissolved	0.002	0.001	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Copper, Dissolved	0.004	0.001	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Copper, Dissolved	0.003	0.001	mg/L	E200.8

SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Copper, Dissolved	0.009	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Copper, Dissolved	0.009	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Copper, Dissolved	0.009	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Copper, Dissolved	0.009	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Copper, Dissolved	0.009	0.001	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Copper, Dissolved	0.008	0.001	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Copper, Dissolved	0.007	0.001	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Copper, Dissolved	0.007	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Copper, Dissolved	0.011	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Copper, Dissolved	0.008	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Copper, Dissolved	ND	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Copper, Dissolved	0.008	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Copper, Dissolved	0.012	0.001	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Copper, Dissolved	0.011	0.001	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Copper, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Copper, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Copper, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Copper, Total Recoverable	0.006	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Copper, Total Recoverable	0.007	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Copper, Total Recoverable	0.007	0.001	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Copper, Total Recoverable	0.01	0.001	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Copper, Total Recoverable	0.015	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Copper, Total Recoverable	0.028	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Copper, Total Recoverable	0.027	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Copper, Total Recoverable	0.028	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Copper, Total Recoverable	0.022	0.001	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Copper, Total Recoverable	0.022	0.001	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Copper, Total Recoverable	0.023	0.001	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Copper, Total Recoverable	0.022	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Copper, Total Recoverable	0.025	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Copper, Total Recoverable	0.019	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Copper, Total Recoverable	0.002	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Copper, Total Recoverable	0.018	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Copper, Total Recoverable	0.021	0.001	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Copper, Total Recoverable	0.021	0.001	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Copper, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Copper, Total Recoverable	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Copper, Total Recoverable	0.006	0.001	mg/L	E200.8

SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Copper, Total Recoverable	0.009	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Copper, Total Recoverable	0.011	0.001	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Copper, Total Recoverable	0.011	0.001	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Copper, Total Recoverable	0.014	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Copper, Total Recoverable	0.025	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Copper, Total Recoverable	0.025	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Copper, Total Recoverable	0.028	0.001	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Copper, Total Recoverable	0.025	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Copper, Total Recoverable	0.025	0.001	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Copper, Total Recoverable	0.027	0.001	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Copper, Total Recoverable	0.024	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Copper, Total Recoverable	0.022	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Copper, Total Recoverable	0.012	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Copper, Total Recoverable	0.003	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Copper, Total Recoverable	0.013	0.001	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Copper, Total Recoverable	0.019	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Copper, Total Recoverable	0.02	0.001	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Copper, Total Recoverable	0.02	0.001	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Copper, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Copper, Total Recoverable	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Copper, Total Recoverable	0.005	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Copper, Total Recoverable	0.005	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Copper, Total Recoverable	0.009	0.001	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Copper, Total Recoverable	0.011	0.001	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Copper, Total Recoverable	0.008	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Copper, Total Recoverable	0.013	0.001	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Copper, Total Recoverable	0.015	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Copper, Total Recoverable	0.014	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Copper, Total Recoverable	0.017	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Copper, Total Recoverable	0.018	0.001	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Copper, Total Recoverable	0.019	0.001	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Copper, Total Recoverable	0.021	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Copper, Total	0.012	0.001	mg/L	E200.8

					Recoverable				
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Copper, Total Recoverable	0.01	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Copper, Total Recoverable	0.009	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Copper, Total Recoverable	0.002	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Copper, Total Recoverable	0.009	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Copper, Total Recoverable	0.013	0.001	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Copper, Total Recoverable	0.013	0.001	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Copper, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Copper, Total Recoverable	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Copper, Total Recoverable	0.003	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Copper, Total Recoverable	0.015	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Copper, Total Recoverable	0.019	0.001	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Copper, Total Recoverable	0.015	0.001	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Copper, Total Recoverable	0.026	0.001	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Copper, Total Recoverable	0.051	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Copper, Total Recoverable	0.052	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Copper, Total Recoverable	0.049	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Copper, Total Recoverable	0.03	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Copper, Total Recoverable	0.028	0.001	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Copper, Total Recoverable	0.033	0.001	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Copper, Total Recoverable	0.032	0.001	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Copper, Total Recoverable	0.032	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Copper, Total Recoverable	0.016	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Copper, Total Recoverable	0.013	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Copper, Total Recoverable	ND	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Copper, Total Recoverable	0.023	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Copper, Total Recoverable	0.015	0.001	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Copper, Total Recoverable	0.016	0.001	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Copper, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Copper, Total Recoverable	ND	0.001	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Hardness as CaCO3	92	1	mg/L	A2340 B
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Hardness as CaCO3	94	1	mg/L	A2340 B
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Hardness as CaCO3	137	1	mg/L	A2340 B
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Hardness as CaCO3	147	1	mg/L	A2340 B

SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Hardness as CaCO3	139	1	mg/L	A2340 B
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Hardness as CaCO3	147	1	mg/L	A2340 B
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Hardness as CaCO3	156	1	mg/L	A2340 B
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Hardness as CaCO3	155	1	mg/L	A2340 B
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Hardness as CaCO3	196	1	mg/L	A2340 B
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Hardness as CaCO3	153	1	mg/L	A2340 B
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Hardness as CaCO3	156	1	mg/L	A2340 B
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Hardness as CaCO3	156	1	mg/L	A2340 B
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Hardness as CaCO3	157	1	mg/L	A2340 B
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Hardness as CaCO3	157	1	mg/L	A2340 B
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Hardness as CaCO3	140	1	mg/L	A2340 B
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Hardness as CaCO3	97	1	mg/L	A2340 B
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Hardness as CaCO3	139	1	mg/L	A2340 B
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Hardness as CaCO3	142	1	mg/L	A2340 B
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Hardness as CaCO3	145	1	mg/L	A2340 B
	Field Blank	H15030394-010	26-Mar-15	18:00	Hardness as CaCO3	ND	1	mg/L	A2340 B
	Field Blank	H15030393-003	27-Mar-15	17:00	Hardness as CaCO3	ND	1	mg/L	A2340 B
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Hardness as CaCO3	87	1	mg/L	A2340 B
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Hardness as CaCO3	102	1	mg/L	A2340 B
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Hardness as CaCO3	136	1	mg/L	A2340 B
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Hardness as CaCO3	132	1	mg/L	A2340 B
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Hardness as CaCO3	142	1	mg/L	A2340 B
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Hardness as CaCO3	147	1	mg/L	A2340 B
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Hardness as CaCO3	149	1	mg/L	A2340 B
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Hardness as CaCO3	182	1	mg/L	A2340 B
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Hardness as CaCO3	169	1	mg/L	A2340 B
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Hardness as CaCO3	169	1	mg/L	A2340 B
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Hardness as CaCO3	164	1	mg/L	A2340 B
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Hardness as CaCO3	161	1	mg/L	A2340 B
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Hardness as CaCO3	172	1	mg/L	A2340 B
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Hardness as CaCO3	136	1	mg/L	A2340 B
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Hardness as CaCO3	93	1	mg/L	A2340 B
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Hardness as CaCO3	134	1	mg/L	A2340 B
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Hardness as CaCO3	140	1	mg/L	A2340 B
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Hardness as CaCO3	137	1	mg/L	A2340 B
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Hardness as CaCO3	139	1	mg/L	A2340 B
	Field Blank	H15050235-011	14-May-15	16:30	Hardness as CaCO3	ND	1	mg/L	A2340 B
	Field Blank	H15050235-002	15-May-15	15:30	Hardness as CaCO3	ND	1	mg/L	A2340 B
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Hardness as CaCO3	124	1	mg/L	A2340 B
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Hardness as CaCO3	141	1	mg/L	A2340 B
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Hardness as CaCO3	195	1	mg/L	A2340 B
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Hardness as CaCO3	176	1	mg/L	A2340 B
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Hardness as CaCO3	177	1	mg/L	A2340 B
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Hardness as CaCO3	180	1	mg/L	A2340 B
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Hardness as CaCO3	180	1	mg/L	A2340 B
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Hardness as CaCO3	180	1	mg/L	A2340 B
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Hardness as CaCO3	217	1	mg/L	A2340 B
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Hardness as CaCO3	216	1	mg/L	A2340 B

SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Hardness as CaCO3	202	1	mg/L	A2340 B
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Hardness as CaCO3	199	1	mg/L	A2340 B
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Hardness as CaCO3	194	1	mg/L	A2340 B
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Hardness as CaCO3	177	1	mg/L	A2340 B
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Hardness as CaCO3	177	1	mg/L	A2340 B
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Hardness as CaCO3	133	1	mg/L	A2340 B
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Hardness as CaCO3	183	1	mg/L	A2340 B
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Hardness as CaCO3	186	1	mg/L	A2340 B
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Hardness as CaCO3	186	1	mg/L	A2340 B
	Field Blank	H15090206-017	8-Sep-15	9:30	Hardness as CaCO3	ND	1	mg/L	A2340 B
	Field Blank	H15090206-009	9-Sep-15	8:45	Hardness as CaCO3	ND	1	mg/L	A2340 B
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Hardness as CaCO3	107	1	mg/L	A2340 B
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Hardness as CaCO3	204	1	mg/L	A2340 B
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Hardness as CaCO3	243	1	mg/L	A2340 B
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Hardness as CaCO3	194	1	mg/L	A2340 B
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Hardness as CaCO3	175	1	mg/L	A2340 B
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Hardness as CaCO3	181	1	mg/L	A2340 B
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Hardness as CaCO3	184	1	mg/L	A2340 B
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Hardness as CaCO3	185	1	mg/L	A2340 B
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Hardness as CaCO3	208	1	mg/L	A2340 B
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Hardness as CaCO3	221	1	mg/L	A2340 B
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Hardness as CaCO3	216	1	mg/L	A2340 B
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Hardness as CaCO3	218	1	mg/L	A2340 B
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Hardness as CaCO3	217	1	mg/L	A2340 B
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Hardness as CaCO3	216	1	mg/L	A2340 B
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Hardness as CaCO3	199	1	mg/L	A2340 B
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Hardness as CaCO3	114	1	mg/L	A2340 B
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Hardness as CaCO3	208	1	mg/L	A2340 B
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Hardness as CaCO3	208	1	mg/L	A2340 B
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Hardness as CaCO3	205	1	mg/L	A2340 B
	Field Blank	H15120093-018	3-Dec-15	9:30	Hardness as CaCO3	ND	1	mg/L	A2340 B
	Field Blank	H15120093-002	4-Dec-15	15:00	Hardness as CaCO3	ND	1	mg/L	A2340 B
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Iron, Dissolved	0.3	0.02	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Iron, Dissolved	0.31	0.02	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Iron, Dissolved	0.13	0.02	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Iron, Dissolved	0.12	0.02	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Iron, Dissolved	0.1	0.02	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Iron, Dissolved	0.15	0.02	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Iron, Dissolved	0.12	0.02	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Iron, Dissolved	0.12	0.02	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Iron, Dissolved	0.09	0.02	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Iron, Dissolved	0.06	0.02	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Iron, Dissolved	0.06	0.02	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Iron, Dissolved	0.06	0.02	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Iron, Dissolved	0.05	0.02	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Iron, Dissolved	0.05	0.02	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Iron, Dissolved	0.04	0.02	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Iron, Dissolved	ND	0.02	mg/L	E200.8

SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Iron, Dissolved	0.04	0.02	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Iron, Dissolved	0.04	0.02	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Iron, Dissolved	0.04	0.02	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Iron, Dissolved	ND	0.02	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Iron, Dissolved	ND	0.02	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Iron, Dissolved	0.3	0.02	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Iron, Dissolved	0.25	0.02	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Iron, Dissolved	0.15	0.02	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Iron, Dissolved	0.18	0.02	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Iron, Dissolved	0.17	0.02	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Iron, Dissolved	0.13	0.02	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Iron, Dissolved	0.13	0.02	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Iron, Dissolved	0.11	0.02	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Iron, Dissolved	0.11	0.02	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Iron, Dissolved	0.11	0.02	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Iron, Dissolved	0.12	0.02	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Iron, Dissolved	0.11	0.02	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Iron, Dissolved	0.09	0.02	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Iron, Dissolved	0.05	0.02	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Iron, Dissolved	0.02	0.02	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Iron, Dissolved	0.05	0.02	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Iron, Dissolved	0.05	0.02	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Iron, Dissolved	0.05	0.02	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Iron, Dissolved	0.05	0.02	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Iron, Dissolved	ND	0.02	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Iron, Dissolved	ND	0.02	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Iron, Dissolved	0.1	0.02	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Iron, Dissolved	0.09	0.02	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Iron, Dissolved	0.06	0.02	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Iron, Dissolved	0.06	0.02	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Iron, Dissolved	0.05	0.02	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Iron, Dissolved	0.04	0.02	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Iron, Dissolved	0.04	0.02	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Iron, Dissolved	0.04	0.02	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Iron, Dissolved	0.03	0.02	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Iron, Dissolved	0.03	0.02	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Iron, Dissolved	0.03	0.02	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Iron, Dissolved	0.03	0.02	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Iron, Dissolved	ND	0.02	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Iron, Dissolved	ND	0.02	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Iron, Dissolved	ND	0.02	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Iron, Dissolved	ND	0.02	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Iron, Dissolved	ND	0.02	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Iron, Dissolved	ND	0.02	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Iron, Dissolved	ND	0.02	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Iron, Dissolved	ND	0.02	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Iron, Dissolved	ND	0.02	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Iron, Dissolved	0.08	0.02	mg/L	E200.8

SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Iron, Dissolved	0.06	0.02	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Iron, Dissolved	0.03	0.02	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Iron, Dissolved	0.04	0.02	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Iron, Dissolved	0.07	0.02	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Iron, Dissolved	0.07	0.02	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Iron, Dissolved	0.06	0.02	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Iron, Dissolved	0.07	0.02	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Iron, Dissolved	0.05	0.02	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Iron, Dissolved	0.05	0.02	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Iron, Dissolved	0.04	0.02	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Iron, Dissolved	0.03	0.02	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Iron, Dissolved	0.03	0.02	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Iron, Dissolved	0.02	0.02	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Iron, Dissolved	0.02	0.02	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Iron, Dissolved	ND	0.02	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Iron, Dissolved	ND	0.02	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Iron, Dissolved	0.02	0.02	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Iron, Dissolved	0.02	0.02	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Iron, Dissolved	ND	0.02	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Iron, Dissolved	ND	0.02	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Iron, Total Recoverable	0.89	0.02	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Iron, Total Recoverable	0.88	0.02	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Iron, Total Recoverable	0.53	0.02	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Iron, Total Recoverable	0.48	0.02	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Iron, Total Recoverable	0.38	0.02	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Iron, Total Recoverable	0.45	0.02	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Iron, Total Recoverable	0.43	0.02	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Iron, Total Recoverable	0.41	0.02	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Iron, Total Recoverable	0.41	0.02	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Iron, Total Recoverable	0.57	0.02	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Iron, Total Recoverable	0.5	0.02	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Iron, Total Recoverable	0.52	0.02	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Iron, Total Recoverable	0.5	0.02	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Iron, Total Recoverable	0.57	0.02	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Iron, Total Recoverable	0.45	0.02	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Iron, Total Recoverable	0.24	0.02	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Iron, Total Recoverable	0.36	0.02	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Iron, Total Recoverable	0.42	0.02	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Iron, Total Recoverable	0.45	0.02	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Iron, Total Recoverable	ND	0.02	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Iron, Total Recoverable	ND	0.02	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Iron, Total Recoverable	0.8	0.02	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Iron, Total Recoverable	0.84	0.02	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Iron, Total Recoverable	0.75	0.02	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Iron, Total Recoverable	0.63	0.02	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Iron, Total Recoverable	0.54	0.02	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Iron, Total Recoverable	0.48	0.02	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Iron, Total Recoverable	0.49	0.02	mg/L	E200.8

SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Iron, Total Recoverable	0.49	0.02	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Iron, Total Recoverable	0.6	0.02	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Iron, Total Recoverable	0.64	0.02	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Iron, Total Recoverable	0.64	0.02	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Iron, Total Recoverable	0.58	0.02	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Iron, Total Recoverable	0.42	0.02	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Iron, Total Recoverable	0.3	0.02	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Iron, Total Recoverable	0.24	0.02	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Iron, Total Recoverable	0.26	0.02	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Iron, Total Recoverable	0.44	0.02	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Iron, Total Recoverable	0.43	0.02	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Iron, Total Recoverable	0.49	0.02	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Iron, Total Recoverable	ND	0.02	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Iron, Total Recoverable	ND	0.02	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Iron, Total Recoverable	0.32	0.02	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Iron, Total Recoverable	0.36	0.02	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Iron, Total Recoverable	0.25	0.02	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Iron, Total Recoverable	0.2	0.02	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Iron, Total Recoverable	0.17	0.02	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Iron, Total Recoverable	0.14	0.02	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Iron, Total Recoverable	0.16	0.02	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Iron, Total Recoverable	0.14	0.02	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Iron, Total Recoverable	0.22	0.02	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Iron, Total Recoverable	0.26	0.02	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Iron, Total Recoverable	0.38	0.02	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Iron, Total Recoverable	0.43	0.02	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Iron, Total Recoverable	0.18	0.02	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Iron, Total Recoverable	0.13	0.02	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Iron, Total Recoverable	0.13	0.02	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Iron, Total Recoverable	0.04	0.02	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Iron, Total Recoverable	0.12	0.02	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Iron, Total Recoverable	0.19	0.02	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Iron, Total Recoverable	0.19	0.02	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Iron, Total Recoverable	ND	0.02	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Iron, Total Recoverable	ND	0.02	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Iron, Total Recoverable	0.65	0.02	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Iron, Total Recoverable	1.25	0.02	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Iron, Total Recoverable	1.07	0.02	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Iron, Total Recoverable	0.75	0.02	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Iron, Total Recoverable	1.04	0.02	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Iron, Total Recoverable	1.32	0.02	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Iron, Total Recoverable	1.29	0.02	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Iron, Total Recoverable	1.32	0.02	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Iron, Total Recoverable	0.56	0.02	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Iron, Total Recoverable	0.56	0.02	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Iron, Total Recoverable	0.85	0.02	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Iron, Total Recoverable	0.83	0.02	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Iron, Total Recoverable	0.8	0.02	mg/L	E200.8

SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Iron, Total Recoverable	0.19	0.02	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Iron, Total Recoverable	0.15	0.02	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Iron, Total Recoverable	0.08	0.02	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Iron, Total Recoverable	0.37	0.02	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Iron, Total Recoverable	0.16	0.02	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Iron, Total Recoverable	0.23	0.02	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Iron, Total Recoverable	ND	0.02	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Iron, Total Recoverable	ND	0.02	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Lead, Dissolved	0.0003	0.0003	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Lead, Dissolved	0.0003	0.0003	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Lead, Dissolved	0.0003	0.0003	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Lead, Dissolved	0.0004	0.0003	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Lead, Dissolved	0.0003	0.0003	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Lead, Dissolved	0.0003	0.0003	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Lead, Dissolved	0.0003	0.0003	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Lead, Dissolved	0.0003	0.0003	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Lead, Dissolved	0.0003	0.0003	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Lead, Dissolved	0.0003	0.0003	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Lead, Dissolved	0.0003	0.0003	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Lead, Dissolved	0.0004	0.0003	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8

	Field Blank	H15050235-011	14-May-15	16:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Lead, Dissolved	ND	0.0003	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Lead, Dissolved	ND	0.0003	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Lead, Total Recoverable	0.0009	0.0003	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Lead, Total Recoverable	0.0009	0.0003	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Lead, Total Recoverable	0.0013	0.0003	mg/L	E200.8

SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Lead, Total Recoverable	0.0011	0.0003	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Lead, Total Recoverable	0.0011	0.0003	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Lead, Total Recoverable	0.0018	0.0003	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Lead, Total Recoverable	0.0015	0.0003	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Lead, Total Recoverable	0.0012	0.0003	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Lead, Total Recoverable	0.0016	0.0003	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Lead, Total Recoverable	0.0017	0.0003	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Lead, Total Recoverable	0.0015	0.0003	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Lead, Total Recoverable	0.0016	0.0003	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Lead, Total Recoverable	0.0015	0.0003	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Lead, Total Recoverable	0.0023	0.0003	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Lead, Total Recoverable	0.0017	0.0003	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Lead, Total Recoverable	0.0003	0.0003	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Lead, Total Recoverable	0.0011	0.0003	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Lead, Total Recoverable	0.0016	0.0003	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Lead, Total Recoverable	0.0018	0.0003	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Lead, Total Recoverable	ND	0.0003	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Lead, Total Recoverable	ND	0.0003	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Lead, Total Recoverable	0.0007	0.0003	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Lead, Total Recoverable	0.0021	0.0003	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Lead, Total Recoverable	0.0027	0.0003	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Lead, Total Recoverable	0.0026	0.0003	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Lead, Total Recoverable	0.0019	0.0003	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Lead, Total Recoverable	0.0017	0.0003	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Lead, Total Recoverable	0.0018	0.0003	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Lead, Total Recoverable	0.002	0.0003	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Lead, Total Recoverable	0.0024	0.0003	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Lead, Total Recoverable	0.0026	0.0003	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Lead, Total Recoverable	0.0028	0.0003	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Lead, Total Recoverable	0.0023	0.0003	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Lead, Total Recoverable	0.0019	0.0003	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Lead, Total Recoverable	0.0011	0.0003	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Lead, Total	0.0003	0.0003	mg/L	E200.8

					Recoverable				
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Lead, Total Recoverable	0.0009	0.0003	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Lead, Total Recoverable	0.002	0.0003	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Lead, Total Recoverable	0.002	0.0003	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Lead, Total Recoverable	0.0022	0.0003	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Lead, Total Recoverable	ND	0.0003	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Lead, Total Recoverable	ND	0.0003	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Lead, Total Recoverable	0.0003	0.0003	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Lead, Total Recoverable	0.0017	0.0003	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Lead, Total Recoverable	0.0014	0.0003	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Lead, Total Recoverable	0.0012	0.0003	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Lead, Total Recoverable	0.0011	0.0003	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Lead, Total Recoverable	0.0009	0.0003	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Lead, Total Recoverable	0.001	0.0003	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Lead, Total Recoverable	0.0009	0.0003	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Lead, Total Recoverable	0.0016	0.0003	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Lead, Total Recoverable	0.0017	0.0003	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Lead, Total Recoverable	0.0025	0.0003	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Lead, Total Recoverable	0.0026	0.0003	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Lead, Total Recoverable	0.0014	0.0003	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Lead, Total Recoverable	0.001	0.0003	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Lead, Total Recoverable	0.001	0.0003	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Lead, Total Recoverable	ND	0.0003	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Lead, Total Recoverable	0.0009	0.0003	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Lead, Total Recoverable	0.0013	0.0003	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Lead, Total Recoverable	0.0013	0.0003	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Lead, Total Recoverable	ND	0.0003	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Lead, Total Recoverable	ND	0.0003	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Lead, Total Recoverable	0.0006	0.0003	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Lead, Total Recoverable	0.0053	0.0003	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Lead, Total Recoverable	0.0061	0.0003	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Lead, Total Recoverable	0.0034	0.0003	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Lead, Total Recoverable	0.0072	0.0003	mg/L	E200.8

SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Lead, Total Recoverable	0.0089	0.0003	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Lead, Total Recoverable	0.0088	0.0003	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Lead, Total Recoverable	0.0084	0.0003	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Lead, Total Recoverable	0.0035	0.0003	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Lead, Total Recoverable	0.0034	0.0003	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Lead, Total Recoverable	0.0048	0.0003	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Lead, Total Recoverable	0.0046	0.0003	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Lead, Total Recoverable	0.0045	0.0003	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Lead, Total Recoverable	0.0012	0.0003	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Lead, Total Recoverable	0.0009	0.0003	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Lead, Total Recoverable	ND	0.0003	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Lead, Total Recoverable	0.0022	0.0003	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Lead, Total Recoverable	0.0009	0.0003	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Lead, Total Recoverable	0.0013	0.0003	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Lead, Total Recoverable	ND	0.0003	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Lead, Total Recoverable	ND	0.0003	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Magnesium, Total Recoverable	6	1	mg/L	E200.7
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Magnesium, Total Recoverable	6	1	mg/L	E200.7
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Magnesium, Total Recoverable	7	1	mg/L	E200.7
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Magnesium, Total Recoverable	11	1	mg/L	E200.7
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Magnesium, Total Recoverable	11	1	mg/L	E200.7
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Magnesium, Total Recoverable	11	1	mg/L	E200.7
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Magnesium, Total Recoverable	12	1	mg/L	E200.7
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Magnesium, Total Recoverable	11	1	mg/L	E200.7
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Magnesium, Total Recoverable	13	1	mg/L	E200.7
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Magnesium, Total Recoverable	10	1	mg/L	E200.7
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Magnesium, Total Recoverable	11	1	mg/L	E200.7
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Magnesium, Total Recoverable	11	1	mg/L	E200.7
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Magnesium, Total Recoverable	11	1	mg/L	E200.7
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Magnesium, Total Recoverable	11	1	mg/L	E200.7
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Magnesium, Total Recoverable	9	1	mg/L	E200.7
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Magnesium, Total Recoverable	5	1	mg/L	E200.7
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Magnesium, Total	9	1	mg/L	E200.7

					Recoverable				
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Magnesium, Total Recoverable	10	1	mg/L	E200.7
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Magnesium, Total Recoverable	10	1	mg/L	E200.7
	Field Blank	H15030394-010	26-Mar-15	18:00	Magnesium, Total Recoverable	ND	1	mg/L	E200.7
	Field Blank	H15030393-003	27-Mar-15	17:00	Magnesium, Total Recoverable	ND	1	mg/L	E200.7
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Magnesium, Total Recoverable	6	1	mg/L	E200.7
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Magnesium, Total Recoverable	7	1	mg/L	E200.7
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Magnesium, Total Recoverable	10	1	mg/L	E200.7
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Magnesium, Total Recoverable	9	1	mg/L	E200.7
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Magnesium, Total Recoverable	10	1	mg/L	E200.7
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Magnesium, Total Recoverable	10	1	mg/L	E200.7
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Magnesium, Total Recoverable	10	1	mg/L	E200.7
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Magnesium, Total Recoverable	12	1	mg/L	E200.7
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Magnesium, Total Recoverable	10	1	mg/L	E200.7
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Magnesium, Total Recoverable	11	1	mg/L	E200.7
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Magnesium, Total Recoverable	10	1	mg/L	E200.7
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Magnesium, Total Recoverable	10	1	mg/L	E200.7
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Magnesium, Total Recoverable	11	1	mg/L	E200.7
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Magnesium, Total Recoverable	8	1	mg/L	E200.7
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Magnesium, Total Recoverable	4	1	mg/L	E200.7
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Magnesium, Total Recoverable	8	1	mg/L	E200.7
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Magnesium, Total Recoverable	8	1	mg/L	E200.7
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Magnesium, Total Recoverable	8	1	mg/L	E200.7
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Magnesium, Total Recoverable	8	1	mg/L	E200.7
	Field Blank	H15050235-011	14-May-15	16:30	Magnesium, Total Recoverable	ND	1	mg/L	E200.7
	Field Blank	H15050235-002	15-May-15	15:30	Magnesium, Total Recoverable	ND	1	mg/L	E200.7
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Magnesium, Total Recoverable	8	1	mg/L	E200.7
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Magnesium, Total Recoverable	10	1	mg/L	E200.7
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Magnesium, Total Recoverable	13	1	mg/L	E200.7
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Magnesium, Total Recoverable	12	1	mg/L	E200.7
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Magnesium, Total Recoverable	12	1	mg/L	E200.7
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Magnesium, Total Recoverable	12	1	mg/L	E200.7
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Magnesium, Total Recoverable	12	1	mg/L	E200.7

SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Magnesium, Total Recoverable	12	1	mg/L	E200.7
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Magnesium, Total Recoverable	14	1	mg/L	E200.7
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Magnesium, Total Recoverable	13	1	mg/L	E200.7
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Magnesium, Total Recoverable	13	1	mg/L	E200.7
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Magnesium, Total Recoverable	13	1	mg/L	E200.7
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Magnesium, Total Recoverable	12	1	mg/L	E200.7
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Magnesium, Total Recoverable	11	1	mg/L	E200.7
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Magnesium, Total Recoverable	11	1	mg/L	E200.7
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Magnesium, Total Recoverable	7	1	mg/L	E200.7
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Magnesium, Total Recoverable	12	1	mg/L	E200.7
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Magnesium, Total Recoverable	12	1	mg/L	E200.7
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Magnesium, Total Recoverable	12	1	mg/L	E200.7
	Field Blank	H15090206-017	8-Sep-15	9:30	Magnesium, Total Recoverable	ND	1	mg/L	E200.7
	Field Blank	H15090206-009	9-Sep-15	8:45	Magnesium, Total Recoverable	ND	1	mg/L	E200.7
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Magnesium, Total Recoverable	9	1	mg/L	E200.7
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Magnesium, Total Recoverable	29	1	mg/L	E200.7
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Magnesium, Total Recoverable	26	1	mg/L	E200.7
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Magnesium, Total Recoverable	18	1	mg/L	E200.7
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Magnesium, Total Recoverable	13	1	mg/L	E200.7
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Magnesium, Total Recoverable	13	1	mg/L	E200.7
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Magnesium, Total Recoverable	13	1	mg/L	E200.7
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Magnesium, Total Recoverable	13	1	mg/L	E200.7
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Magnesium, Total Recoverable	14	1	mg/L	E200.7
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Magnesium, Total Recoverable	14	1	mg/L	E200.7
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Magnesium, Total Recoverable	15	1	mg/L	E200.7
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Magnesium, Total Recoverable	14	1	mg/L	E200.7
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Magnesium, Total Recoverable	14	1	mg/L	E200.7
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Magnesium, Total Recoverable	15	1	mg/L	E200.7
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Magnesium, Total Recoverable	13	1	mg/L	E200.7
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Magnesium, Total Recoverable	7	1	mg/L	E200.7
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Magnesium, Total Recoverable	13	1	mg/L	E200.7
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Magnesium, Total Recoverable	13	1	mg/L	E200.7
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Magnesium, Total	13	1	mg/L	E200.7

					Recoverable				
	Field Blank	H15120093-018	3-Dec-15	9:30	Magnesium, Total Recoverable	ND	1	mg/L	E200.7
	Field Blank	H15120093-002	4-Dec-15	15:00	Magnesium, Total Recoverable	ND	1	mg/L	E200.7
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Manganese, Dissolved	0.035	0.001	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Manganese, Dissolved	0.034	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Manganese, Dissolved	0.031	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Manganese, Dissolved	0.048	0.001	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Manganese, Dissolved	0.061	0.001	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Manganese, Dissolved	0.148	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Manganese, Dissolved	0.203	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Manganese, Dissolved	0.203	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Manganese, Dissolved	0.317	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Manganese, Dissolved	0.222	0.001	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Manganese, Dissolved	0.182	0.001	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Manganese, Dissolved	0.184	0.001	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Manganese, Dissolved	0.183	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Manganese, Dissolved	0.182	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Manganese, Dissolved	0.152	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Manganese, Dissolved	0.002	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Manganese, Dissolved	0.17	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Manganese, Dissolved	0.147	0.001	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Manganese, Dissolved	0.137	0.001	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Manganese, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Manganese, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Manganese, Dissolved	0.029	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Manganese, Dissolved	0.052	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Manganese, Dissolved	0.043	0.001	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Manganese, Dissolved	0.055	0.001	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Manganese, Dissolved	0.144	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Manganese, Dissolved	0.186	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Manganese, Dissolved	0.189	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Manganese, Dissolved	0.307	0.001	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Manganese, Dissolved	0.285	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Manganese, Dissolved	0.283	0.001	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Manganese, Dissolved	0.148	0.001	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Manganese, Dissolved	0.135	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Manganese, Dissolved	0.142	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Manganese, Dissolved	0.088	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Manganese, Dissolved	0.002	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Manganese, Dissolved	0.121	0.001	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Manganese, Dissolved	0.113	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Manganese, Dissolved	0.112	0.001	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Manganese, Dissolved	0.106	0.001	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Manganese, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Manganese, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Manganese, Dissolved	0.026	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Manganese, Dissolved	0.061	0.001	mg/L	E200.8

SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Manganese, Dissolved	0.037	0.001	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Manganese, Dissolved	0.051	0.001	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Manganese, Dissolved	0.101	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Manganese, Dissolved	0.107	0.001	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Manganese, Dissolved	0.123	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Manganese, Dissolved	0.121	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Manganese, Dissolved	0.146	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Manganese, Dissolved	0.148	0.001	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Manganese, Dissolved	0.121	0.001	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Manganese, Dissolved	0.13	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Manganese, Dissolved	0.059	0.001	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Manganese, Dissolved	0.054	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Manganese, Dissolved	0.053	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Manganese, Dissolved	0.002	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Manganese, Dissolved	0.078	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Manganese, Dissolved	0.032	0.001	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Manganese, Dissolved	0.026	0.001	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Manganese, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Manganese, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Manganese, Dissolved	0.056	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Manganese, Dissolved	0.129	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Manganese, Dissolved	0.207	0.001	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Manganese, Dissolved	0.167	0.001	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Manganese, Dissolved	0.243	0.001	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Manganese, Dissolved	0.289	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Manganese, Dissolved	0.288	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Manganese, Dissolved	0.292	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Manganese, Dissolved	0.33	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Manganese, Dissolved	0.325	0.001	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Manganese, Dissolved	0.298	0.001	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Manganese, Dissolved	0.296	0.001	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Manganese, Dissolved	0.294	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Manganese, Dissolved	0.195	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Manganese, Dissolved	0.15	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Manganese, Dissolved	0.002	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Manganese, Dissolved	0.128	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Manganese, Dissolved	0.079	0.001	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Manganese, Dissolved	0.073	0.001	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Manganese, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Manganese, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Manganese, Total Recoverable	0.056	0.001	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Manganese, Total Recoverable	0.055	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Manganese, Total Recoverable	0.055	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Manganese, Total Recoverable	0.068	0.001	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Manganese, Total Recoverable	0.073	0.001	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Manganese, Total	0.16	0.001	mg/L	E200.8

					Recoverable				
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Manganese, Total Recoverable	0.217	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Manganese, Total Recoverable	0.217	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Manganese, Total Recoverable	0.335	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Manganese, Total Recoverable	0.254	0.001	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Manganese, Total Recoverable	0.215	0.001	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Manganese, Total Recoverable	0.214	0.001	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Manganese, Total Recoverable	0.217	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Manganese, Total Recoverable	0.234	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Manganese, Total Recoverable	0.18	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Manganese, Total Recoverable	0.009	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Manganese, Total Recoverable	0.184	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Manganese, Total Recoverable	0.175	0.001	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Manganese, Total Recoverable	0.169	0.001	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Manganese, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Manganese, Total Recoverable	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Manganese, Total Recoverable	0.048	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Manganese, Total Recoverable	0.071	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Manganese, Total Recoverable	0.072	0.001	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Manganese, Total Recoverable	0.077	0.001	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Manganese, Total Recoverable	0.168	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Manganese, Total Recoverable	0.206	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Manganese, Total Recoverable	0.215	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Manganese, Total Recoverable	0.352	0.001	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Manganese, Total Recoverable	0.329	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Manganese, Total Recoverable	0.341	0.001	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Manganese, Total Recoverable	0.237	0.001	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Manganese, Total Recoverable	0.212	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Manganese, Total Recoverable	0.233	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Manganese, Total Recoverable	0.131	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Manganese, Total Recoverable	0.01	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Manganese, Total Recoverable	0.146	0.001	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Manganese, Total Recoverable	0.169	0.001	mg/L	E200.8

SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Manganese, Total Recoverable	0.168	0.001	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Manganese, Total Recoverable	0.167	0.001	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Manganese, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Manganese, Total Recoverable	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Manganese, Total Recoverable	0.035	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Manganese, Total Recoverable	0.075	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Manganese, Total Recoverable	0.065	0.001	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Manganese, Total Recoverable	0.073	0.001	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Manganese, Total Recoverable	0.135	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Manganese, Total Recoverable	0.13	0.001	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Manganese, Total Recoverable	0.144	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Manganese, Total Recoverable	0.14	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Manganese, Total Recoverable	0.2	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Manganese, Total Recoverable	0.207	0.001	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Manganese, Total Recoverable	0.211	0.001	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Manganese, Total Recoverable	0.211	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Manganese, Total Recoverable	0.123	0.001	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Manganese, Total Recoverable	0.096	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Manganese, Total Recoverable	0.099	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Manganese, Total Recoverable	0.005	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Manganese, Total Recoverable	0.11	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Manganese, Total Recoverable	0.085	0.001	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Manganese, Total Recoverable	0.08	0.001	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Manganese, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Manganese, Total Recoverable	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Manganese, Total Recoverable	0.078	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Manganese, Total Recoverable	0.162	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Manganese, Total Recoverable	0.28	0.001	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Manganese, Total Recoverable	0.207	0.001	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Manganese, Total Recoverable	0.286	0.001	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Manganese, Total Recoverable	0.385	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Manganese, Total Recoverable	0.363	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Manganese, Total	0.395	0.001	mg/L	E200.8

					Recoverable				
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Manganese, Total Recoverable	0.37	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Manganese, Total Recoverable	0.357	0.001	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Manganese, Total Recoverable	0.393	0.001	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Manganese, Total Recoverable	0.378	0.001	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Manganese, Total Recoverable	0.375	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Manganese, Total Recoverable	0.214	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Manganese, Total Recoverable	0.161	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Manganese, Total Recoverable	0.005	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Manganese, Total Recoverable	0.177	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Manganese, Total Recoverable	0.095	0.001	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Manganese, Total Recoverable	0.11	0.001	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Manganese, Total Recoverable	0.002	0.001	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Manganese, Total Recoverable	ND	0.001	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Mercury, Dissolved	0.000007	0.000005	mg/L	E245.1
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Mercury, Dissolved	0.000008	0.000005	mg/L	E245.1
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Mercury, Dissolved	0.000008	0.000005	mg/L	E245.1
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Mercury, Dissolved	0.000007	0.000005	mg/L	E245.1
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Mercury, Dissolved	0.000009	0.000005	mg/L	E245.1
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
	Field Blank	H15030394-010	26-Mar-15	18:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
	Field Blank	H15030393-003	27-Mar-15	17:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Mercury, Dissolved	ND	0.000005	mg/L	E245.1

SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Mercury, Dissolved	0.000009	0.000005	mg/L	E245.1
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
	Field Blank	H15050235-011	14-May-15	16:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
	Field Blank	H15050235-002	15-May-15	15:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Mercury, Dissolved	0.000005	0.000005	mg/L	E245.1
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Mercury, Dissolved	0.000006	0.000005	mg/L	E245.1
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Mercury, Dissolved	0.000005	0.000005	mg/L	E245.1
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Mercury, Dissolved	0.000005	0.000005	mg/L	E245.1
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Mercury, Dissolved	0.000005	0.000005	mg/L	E245.1
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Mercury, Dissolved	0.000005	0.000005	mg/L	E245.1
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Mercury, Dissolved	0.000005	0.000005	mg/L	E245.1
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
	Field Blank	H15090206-017	8-Sep-15	9:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
	Field Blank	H15090206-009	9-Sep-15	8:45	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1

SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
	Field Blank	H15120093-018	3-Dec-15	9:30	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
	Field Blank	H15120093-002	4-Dec-15	15:00	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Mercury, Total Recoverable	0.000014	0.000005	mg/L	E245.1
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Mercury, Total Recoverable	0.000016	0.000005	mg/L	E245.1
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Mercury, Total Recoverable	0.000012	0.000005	mg/L	E245.1
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Mercury, Total Recoverable	0.000011	0.000005	mg/L	E245.1
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Mercury, Total Recoverable	0.000006	0.000005	mg/L	E245.1
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Mercury, Total Recoverable	0.000007	0.000005	mg/L	E245.1
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Mercury, Total Recoverable	0.000008	0.000005	mg/L	E245.1
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Mercury, Total Recoverable	0.000008	0.000005	mg/L	E245.1
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Mercury, Total Recoverable	0.00001	0.000005	mg/L	E245.1
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Mercury, Total Recoverable	0.000008	0.000005	mg/L	E245.1
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Mercury, Total Recoverable	0.000011	0.000005	mg/L	E245.1
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Mercury, Total Recoverable	0.00001	0.000005	mg/L	E245.1
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Mercury, Total Recoverable	0.00001	0.000005	mg/L	E245.1
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Mercury, Total Recoverable	0.000005	0.000005	mg/L	E245.1
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Mercury, Total Recoverable	0.000009	0.000005	mg/L	E245.1
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Mercury, Total Recoverable	0.000005	0.000005	mg/L	E245.1
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Mercury, Total Recoverable	0.000013	0.000005	mg/L	E245.1
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Mercury, Total Recoverable	0.000011	0.000005	mg/L	E245.1
	Field Blank	H15030394-010	26-Mar-15	18:00	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
	Field Blank	H15030393-003	27-Mar-15	17:00	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Mercury, Total Recoverable	0.000006	0.000005	mg/L	E245.1

SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Mercury, Total Recoverable	0.000007	0.000005	mg/L	E245.1
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Mercury, Total Recoverable	0.000007	0.000005	mg/L	E245.1
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Mercury, Total Recoverable	0.000009	0.000005	mg/L	E245.1
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Mercury, Total Recoverable	0.000007	0.000005	mg/L	E245.1
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Mercury, Total Recoverable	0.00001	0.000005	mg/L	E245.1
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Mercury, Total Recoverable	0.000009	0.000005	mg/L	E245.1
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Mercury, Total Recoverable	0.000012	0.000005	mg/L	E245.1
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Mercury, Total Recoverable	0.000012	0.000005	mg/L	E245.1
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Mercury, Total Recoverable	0.000016	0.000005	mg/L	E245.1
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Mercury, Total Recoverable	0.000012	0.000005	mg/L	E245.1
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Mercury, Total Recoverable	0.000009	0.000005	mg/L	E245.1
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Mercury, Total Recoverable	0.000007	0.000005	mg/L	E245.1
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Mercury, Total Recoverable	0.000008	0.000005	mg/L	E245.1
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Mercury, Total Recoverable	0.000014	0.000005	mg/L	E245.1
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Mercury, Total Recoverable	0.000015	0.000005	mg/L	E245.1
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Mercury, Total Recoverable	0.000015	0.000005	mg/L	E245.1
	Field Blank	H15050235-011	14-May-15	16:30	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
	Field Blank	H15050235-002	15-May-15	15:30	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Mercury, Total Recoverable	0.000005	0.000005	mg/L	E245.1
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Mercury, Total Recoverable	0.000007	0.000005	mg/L	E245.1
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Mercury, Total Recoverable	0.000008	0.000005	mg/L	E245.1
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Mercury, Total Recoverable	0.000009	0.000005	mg/L	E245.1
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Mercury, Total Recoverable	0.000011	0.000005	mg/L	E245.1
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Mercury, Total Recoverable	0.000011	0.000005	mg/L	E245.1
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Mercury, Total Recoverable	0.000013	0.000005	mg/L	E245.1
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Mercury, Total Recoverable	0.000012	0.000005	mg/L	E245.1
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Mercury, Total Recoverable	0.000009	0.000005	mg/L	E245.1
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Mercury, Total	0.00000	0.000005	mg/L	E245.1

					Recoverable	6			
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Mercury, Total Recoverable	0.000008	0.000005	mg/L	E245.1
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Mercury, Total Recoverable	0.000007	0.000005	mg/L	E245.1
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Mercury, Total Recoverable	0.000007	0.000005	mg/L	E245.1
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Mercury, Total Recoverable	0.000008	0.000005	mg/L	E245.1
	Field Blank	H15090206-017	8-Sep-15	9:30	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
	Field Blank	H15090206-009	9-Sep-15	8:45	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Mercury, Total Recoverable	0.000012	0.000005	mg/L	E245.1
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Mercury, Total Recoverable	0.000013	0.000005	mg/L	E245.1
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Mercury, Total Recoverable	0.000012	0.000005	mg/L	E245.1
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Mercury, Total Recoverable	0.000021	0.000005	mg/L	E245.1
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Mercury, Total Recoverable	0.000029	0.000005	mg/L	E245.1
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Mercury, Total Recoverable	0.000027	0.000005	mg/L	E245.1
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Mercury, Total Recoverable	0.000028	0.000005	mg/L	E245.1
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Mercury, Total Recoverable	0.000013	0.000005	mg/L	E245.1
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Mercury, Total Recoverable	0.000012	0.000005	mg/L	E245.1
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Mercury, Total Recoverable	0.000024	0.000005	mg/L	E245.1
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Mercury, Total Recoverable	0.000017	0.000005	mg/L	E245.1
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Mercury, Total Recoverable	0.000017	0.000005	mg/L	E245.1
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Mercury, Total Recoverable	0.000009	0.000005	mg/L	E245.1
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Mercury, Total Recoverable	0.000006	0.000005	mg/L	E245.1
	Field Blank	H15120093-018	3-Dec-15	9:30	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
	Field Blank	H15120093-002	4-Dec-15	15:00	Mercury, Total Recoverable	ND	0.000005	mg/L	E245.1
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Molybdenum, Dissolved	0.007	0.005	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Molybdenum, Dissolved	0.006	0.005	mg/L	E200.8

SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Molybdenum, Dissolved	0.006	0.005	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Molybdenum, Dissolved	0.006	0.005	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Molybdenum,	ND	0.005	mg/L	E200.8

					Dissolved				
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Molybdenum, Dissolved	0.007	0.005	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Molybdenum, Dissolved	0.007	0.005	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Molybdenum, Dissolved	0.006	0.005	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Molybdenum, Dissolved	0.006	0.005	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Molybdenum, Dissolved	0.006	0.005	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Molybdenum, Dissolved	0.006	0.005	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Molybdenum, Dissolved	0.006	0.005	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Molybdenum, Dissolved	0.006	0.005	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Molybdenum, Dissolved	0.006	0.005	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Molybdenum, Dissolved	0.006	0.005	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Molybdenum, Dissolved	0.006	0.005	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Molybdenum, Dissolved	0.006	0.005	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8

SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Molybdenum, Total Recoverable	0.007	0.005	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Molybdenum, Total	ND	0.005	mg/L	E200.8

					Recoverable				
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Molybdenum, Total Recoverable	0.007	0.005	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Molybdenum, Total Recoverable	0.007	0.005	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8

SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Molybdenum, Total Recoverable	0.006	0.005	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Molybdenum, Total Recoverable	0.005	0.005	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Molybdenum, Total	ND	0.005	mg/L	E200.8

					Recoverable				
	Field Blank	H15120093-002	4-Dec-15	15:00	Molybdenum, Total Recoverable	ND	0.005	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Nickel, Dissolved	ND	0.002	mg/L	E200.8

SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Nickel, Dissolved	ND	0.002	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Nickel, Dissolved	ND	0.002	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8

SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Nickel, Total	ND	0.002	mg/L	E200.8

					Recoverable				
	Field Blank	H15050235-011	14-May-15	16:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Nickel, Total Recoverable	0.002	0.002	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Nickel, Total Recoverable	0.005	0.002	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8

SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Nickel, Total Recoverable	ND	0.002	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Nitrogen, Ammonia	3.4	0.1	mg/L	E350.1
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Nitrogen, Ammonia	2.2	0.1	mg/L	E350.1
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Nitrogen, Ammonia	0.78	0.05	mg/L	E350.1
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Nitrogen, Ammonia	0.77	0.05	mg/L	E350.1
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Nitrogen, Ammonia	0.96	0.05	mg/L	E350.1
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Nitrogen, Ammonia	0.71	0.05	mg/L	E350.1
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Nitrogen, Ammonia	0.38	0.05	mg/L	E350.1
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Nitrogen, Ammonia	0.38	0.05	mg/L	E350.1
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Nitrogen, Ammonia	0.22	0.05	mg/L	E350.1
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Nitrogen, Ammonia	0.47	0.05	mg/L	E350.1
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Nitrogen, Ammonia	0.45	0.05	mg/L	E350.1
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Nitrogen, Ammonia	0.45	0.05	mg/L	E350.1
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Nitrogen, Ammonia	0.22	0.05	mg/L	E350.1
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Nitrogen, Ammonia	0.17	0.05	mg/L	E350.1
	Field Blank	H15030394-010	26-Mar-15	18:00	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
	Field Blank	H15030393-003	27-Mar-15	17:00	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Nitrogen, Ammonia	3	0.1	mg/L	E350.1
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Nitrogen, Ammonia	1.68	0.05	mg/L	E350.1
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Nitrogen, Ammonia	0.26	0.05	mg/L	E350.1
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Nitrogen, Ammonia	0.26	0.05	mg/L	E350.1
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Nitrogen, Ammonia	0.41	0.05	mg/L	E350.1
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Nitrogen, Ammonia	0.66	0.05	mg/L	E350.1
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Nitrogen, Ammonia	0.67	0.05	mg/L	E350.1

SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
	Field Blank	H15050235-011	14-May-15	16:30	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
	Field Blank	H15050235-002	15-May-15	15:30	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Nitrogen, Ammonia	5.3	0.2	mg/L	E350.1
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Nitrogen, Ammonia	0.94	0.05	mg/L	E350.1
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Nitrogen, Ammonia	0.36	0.05	mg/L	E350.1
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Nitrogen, Ammonia	0.55	0.05	mg/L	E350.1
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Nitrogen, Ammonia	0.54	0.05	mg/L	E350.1
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Nitrogen, Ammonia	0.09	0.05	mg/L	E350.1
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Nitrogen, Ammonia	0.07	0.05	mg/L	E350.1
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Nitrogen, Ammonia	0.15	0.05	mg/L	E350.1
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
	Field Blank	H15090206-017	8-Sep-15	9:30	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
	Field Blank	H15090206-009	9-Sep-15	8:45	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Nitrogen, Ammonia	4	0.1	mg/L	E350.1
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Nitrogen, Ammonia	3	0.1	mg/L	E350.1
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Nitrogen, Ammonia	1.62	0.05	mg/L	E350.1
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Nitrogen, Ammonia	1.61	0.05	mg/L	E350.1
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Nitrogen, Ammonia	1.74	0.05	mg/L	E350.1
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Nitrogen, Ammonia	2	0.1	mg/L	E350.1
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Nitrogen, Ammonia	1.9	0.1	mg/L	E350.1
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Nitrogen, Ammonia	1.82	0.05	mg/L	E350.1
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Nitrogen, Ammonia	1.9	0.2	mg/L	E350.1
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Nitrogen, Ammonia	2	0.1	mg/L	E350.1
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Nitrogen, Ammonia	1.7	0.05	mg/L	E350.1
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Nitrogen, Ammonia	1.3	0.05	mg/L	E350.1
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1

SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Nitrogen, Ammonia	0.97	0.05	mg/L	E350.1
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Nitrogen, Ammonia	0.99	0.05	mg/L	E350.1
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Nitrogen, Ammonia	0.88	0.05	mg/L	E350.1
	Field Blank	H15120093-018	3-Dec-15	9:30	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
	Field Blank	H15120093-002	4-Dec-15	15:00	Nitrogen, Ammonia	ND	0.05	mg/L	E350.1
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	NO3+NO2 as N	0.39	0.02	mg/L	E353.2
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	NO3+NO2 as N	0.39	0.02	mg/L	E353.2
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	NO3+NO2 as N	0.61	0.02	mg/L	E353.2
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	NO3+NO2 as N	0.8	0.02	mg/L	E353.2
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	NO3+NO2 as N	0.7	0.02	mg/L	E353.2
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	NO3+NO2 as N	1.26	0.02	mg/L	E353.2
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	NO3+NO2 as N	1.5	0.02	mg/L	E353.2
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	NO3+NO2 as N	1.47	0.02	mg/L	E353.2
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	NO3+NO2 as N	1.45	0.02	mg/L	E353.2
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	NO3+NO2 as N	0.99	0.02	mg/L	E353.2
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	NO3+NO2 as N	1.34	0.02	mg/L	E353.2
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	NO3+NO2 as N	1.33	0.02	mg/L	E353.2
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	NO3+NO2 as N	1.22	0.02	mg/L	E353.2
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	NO3+NO2 as N	1.2	0.02	mg/L	E353.2
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	NO3+NO2 as N	0.87	0.02	mg/L	E353.2
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	NO3+NO2 as N	0.02	0.02	mg/L	E353.2
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	NO3+NO2 as N	0.94	0.02	mg/L	E353.2
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	NO3+NO2 as N	1.16	0.02	mg/L	E353.2
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	NO3+NO2 as N	1.2	0.02	mg/L	E353.2
	Field Blank	H15030394-010	26-Mar-15	18:00	NO3+NO2 as N	ND	0.02	mg/L	E353.2
	Field Blank	H15030393-003	27-Mar-15	17:00	NO3+NO2 as N	ND	0.02	mg/L	E353.2
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	NO3+NO2 as N	0.3	0.02	mg/L	E353.2
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	NO3+NO2 as N	0.45	0.02	mg/L	E353.2
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	NO3+NO2 as N	0.58	0.02	mg/L	E353.2
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	NO3+NO2 as N	0.49	0.02	mg/L	E353.2
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	NO3+NO2 as N	1.58	0.02	mg/L	E353.2
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	NO3+NO2 as N	1.71	0.02	mg/L	E353.2
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	NO3+NO2 as N	1.69	0.02	mg/L	E353.2
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	NO3+NO2 as N	1.61	0.02	mg/L	E353.2
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	NO3+NO2 as N	1.29	0.02	mg/L	E353.2
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	NO3+NO2 as N	1.28	0.02	mg/L	E353.2
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	NO3+NO2 as N	1.34	0.02	mg/L	E353.2
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	NO3+NO2 as N	1.1	0.02	mg/L	E353.2
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	NO3+NO2 as N	1.29	0.02	mg/L	E353.2
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	NO3+NO2 as N	0.68	0.02	mg/L	E353.2
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	NO3+NO2 as N	ND	0.02	mg/L	E353.2
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	NO3+NO2 as N	0.69	0.02	mg/L	E353.2
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	NO3+NO2 as N	0.59	0.02	mg/L	E353.2
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	NO3+NO2 as N	0.6	0.02	mg/L	E353.2
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	NO3+NO2 as N	0.6	0.02	mg/L	E353.2
	Field Blank	H15050235-011	14-May-15	16:30	NO3+NO2 as N	ND	0.02	mg/L	E353.2
	Field Blank	H15050235-002	15-May-15	15:30	NO3+NO2 as N	ND	0.02	mg/L	E353.2
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	NO3+NO2 as N	1.18	0.02	mg/L	E353.2

SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	NO3+NO2 as N	1.13	0.02	mg/L	E353.2
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	NO3+NO2 as N	1.32	0.02	mg/L	E353.2
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	NO3+NO2 as N	1.02	0.02	mg/L	E353.2
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	NO3+NO2 as N	3.62	0.02	mg/L	E353.2
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	NO3+NO2 as N	3.15	0.02	mg/L	E353.2
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	NO3+NO2 as N	3.01	0.02	mg/L	E353.2
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	NO3+NO2 as N	3.01	0.02	mg/L	E353.2
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	NO3+NO2 as N	2.71	0.05	mg/L	E353.2
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	NO3+NO2 as N	2.63	0.02	mg/L	E353.2
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	NO3+NO2 as N	2.6	0.02	mg/L	E353.2
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	NO3+NO2 as N	2.61	0.05	mg/L	E353.2
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	NO3+NO2 as N	2.59	0.02	mg/L	E353.2
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	NO3+NO2 as N	1.96	0.02	mg/L	E353.2
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	NO3+NO2 as N	1.96	0.02	mg/L	E353.2
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	NO3+NO2 as N	ND	0.02	mg/L	E353.2
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	NO3+NO2 as N	1.68	0.02	mg/L	E353.2
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	NO3+NO2 as N	1.71	0.02	mg/L	E353.2
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	NO3+NO2 as N	1.54	0.02	mg/L	E353.2
	Field Blank	H15090206-017	8-Sep-15	9:30	NO3+NO2 as N	ND	0.02	mg/L	E353.2
	Field Blank	H15090206-009	9-Sep-15	8:45	NO3+NO2 as N	ND	0.02	mg/L	E353.2
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	NO3+NO2 as N	1.07	0.02	mg/L	E353.2
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	NO3+NO2 as N	1.22	0.02	mg/L	E353.2
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	NO3+NO2 as N	1.59	0.02	mg/L	E353.2
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	NO3+NO2 as N	1.14	0.02	mg/L	E353.2
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	NO3+NO2 as N	1.56	0.02	mg/L	E353.2
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	NO3+NO2 as N	1.97	0.02	mg/L	E353.2
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	NO3+NO2 as N	1.92	0.02	mg/L	E353.2
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	NO3+NO2 as N	1.84	0.02	mg/L	E353.2
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	NO3+NO2 as N	1.72	0.02	mg/L	E353.2
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	NO3+NO2 as N	1.69	0.02	mg/L	E353.2
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	NO3+NO2 as N	1.85	0.02	mg/L	E353.2
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	NO3+NO2 as N	2	0.02	mg/L	E353.2
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	NO3+NO2 as N	1.97	0.02	mg/L	E353.2
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	NO3+NO2 as N	2.23	0.02	mg/L	E353.2
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	NO3+NO2 as N	1.77	0.02	mg/L	E353.2
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	NO3+NO2 as N	0.09	0.02	mg/L	E353.2
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	NO3+NO2 as N	1.83	0.02	mg/L	E353.2
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	NO3+NO2 as N	1.88	0.02	mg/L	E353.2
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	NO3+NO2 as N	1.78	0.02	mg/L	E353.2
	Field Blank	H15120093-018	3-Dec-15	9:30	NO3+NO2 as N	ND	0.02	mg/L	E353.2
	Field Blank	H15120093-002	4-Dec-15	15:00	NO3+NO2 as N	ND	0.02	mg/L	E353.2
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	N-Total	0.61	0.05	mg/L	A4500 N-C
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	N-Total	0.66	0.05	mg/L	A4500 N-C
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	N-Total	1	0.05	mg/L	A4500 N-C
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	N-Total	1.09	0.05	mg/L	A4500 N-C
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	N-Total	5.4	0.2	mg/L	A4500 N-C

SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	N-Total	4.5	0.2	mg/L	A4500 N-C
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	N-Total	3.06	0.06	mg/L	A4500 N-C
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	N-Total	2.99	0.06	mg/L	A4500 N-C
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	N-Total	3.2	0.2	mg/L	A4500 N-C
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	N-Total	6.1	0.2	mg/L	A4500 N-C
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	N-Total	6.1	0.2	mg/L	A4500 N-C
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	N-Total	6.1	0.2	mg/L	A4500 N-C
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	N-Total	5.1	0.2	mg/L	A4500 N-C
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	N-Total	6	0.2	mg/L	A4500 N-C
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	N-Total	1.88	0.05	mg/L	A4500 N-C
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	N-Total	0.15	0.05	mg/L	A4500 N-C
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	N-Total	1.94	0.05	mg/L	A4500 N-C
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	N-Total	2	0.05	mg/L	A4500 N-C
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	N-Total	1.86	0.06	mg/L	A4500 N-C
	Field Blank	H15030394-010	26-Mar-15	18:00	N-Total	ND	0.05	mg/L	A4500 N-C
	Field Blank	H15030393-003	27-Mar-15	17:00	N-Total	ND	0.05	mg/L	A4500 N-C
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	N-Total	0.55	0.05	mg/L	A4500 N-C
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	N-Total	0.74	0.05	mg/L	A4500 N-C
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	N-Total	0.88	0.05	mg/L	A4500 N-C
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	N-Total	4.1	0.2	mg/L	A4500 N-C
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	N-Total	4.2	0.2	mg/L	A4500 N-C
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	N-Total	2.68	0.06	mg/L	A4500 N-C
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	N-Total	2.68	0.06	mg/L	A4500 N-C
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	N-Total	2.83	0.06	mg/L	A4500 N-C
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	N-Total	2.87	0.06	mg/L	A4500 N-C
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	N-Total	2.85	0.06	mg/L	A4500 N-C
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	N-Total	1.17	0.05	mg/L	A4500 N-C
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	N-Total	1.85	0.05	mg/L	A4500 N-C
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	N-Total	1.93	0.06	mg/L	A4500 N-C
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	N-Total	1.2	0.05	mg/L	A4500 N-C
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	N-Total	0.09	0.05	mg/L	A4500 N-C
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	N-Total	1.18	0.05	mg/L	A4500 N-C
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	N-Total	1.14	0.05	mg/L	A4500 N-

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SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	N-Total	1.14	0.05	mg/L	A4500 N-C
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	N-Total	1.02	0.05	mg/L	A4500 N-C
	Field Blank	H15050235-011	14-May-15	16:30	N-Total	ND	0.05	mg/L	A4500 N-C
	Field Blank	H15050235-002	15-May-15	15:30	N-Total	ND	0.05	mg/L	A4500 N-C
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	N-Total	1.3	0.05	mg/L	A4500 N-C
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	N-Total	2.5	0.1	mg/L	A4500 N-C
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	N-Total	1.46	0.05	mg/L	A4500 N-C
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	N-Total	32.9	0.8	mg/L	A4500 N-C
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	N-Total	24.9	0.8	mg/L	A4500 N-C
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	N-Total	18.8	0.8	mg/L	A4500 N-C
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	N-Total	19.2	0.8	mg/L	A4500 N-C
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	N-Total	18.8	0.8	mg/L	A4500 N-C
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	N-Total	3.3	0.1	mg/L	A4500 N-C
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	N-Total	6.5	0.1	mg/L	A4500 N-C
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	N-Total	5.8	0.1	mg/L	A4500 N-C
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	N-Total	6.2	0.1	mg/L	A4500 N-C
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	N-Total	5.7	0.1	mg/L	A4500 N-C
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	N-Total	4.2	0.1	mg/L	A4500 N-C
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	N-Total	4.2	0.1	mg/L	A4500 N-C
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	N-Total	ND	0.05	mg/L	A4500 N-C
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	N-Total	1.88	0.05	mg/L	A4500 N-C
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	N-Total	3.7	0.1	mg/L	A4500 N-C
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	N-Total	1.79	0.05	mg/L	A4500 N-C
	Field Blank	H15090206-017	8-Sep-15	9:30	N-Total	ND	0.05	mg/L	A4500 N-C
	Field Blank	H15090206-009	9-Sep-15	8:45	N-Total	ND	0.05	mg/L	A4500 N-C
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	N-Total	1.15	0.06	mg/L	A4500 N-C
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	N-Total	1.69	0.05	mg/L	A4500 N-C
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	N-Total	1.73	0.05	mg/L	A4500 N-C
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	N-Total	5.9	0.2	mg/L	A4500 N-C
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	N-Total	4.9	0.2	mg/L	A4500 N-C
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	N-Total	3.9	0.2	mg/L	A4500 N-C
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	N-Total	3.73	0.06	mg/L	A4500 N-C

SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	N-Total	4.7	0.1	mg/L	A4500 N-C
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	N-Total	4.7	0.1	mg/L	A4500 N-C
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	N-Total	4.6	0.1	mg/L	A4500 N-C
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	N-Total	4.3	0.2	mg/L	A4500 N-C
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	N-Total	4.5	0.2	mg/L	A4500 N-C
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	N-Total	5.1	0.1	mg/L	A4500 N-C
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	N-Total	5.1	0.1	mg/L	A4500 N-C
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	N-Total	3.5	0.06	mg/L	A4500 N-C
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	N-Total	0.18	0.05	mg/L	A4500 N-C
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	N-Total	3.41	0.06	mg/L	A4500 N-C
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	N-Total	3.41	0.06	mg/L	A4500 N-C
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	N-Total	2.96	0.06	mg/L	A4500 N-C
	Field Blank	H15120093-018	3-Dec-15	9:30	N-Total	ND	0.05	mg/L	A4500 N-C
	Field Blank	H15120093-002	4-Dec-15	15:00	N-Total	ND	0.05	mg/L	A4500 N-C
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Organic Carbon, Dissolved (DOC)	4.3	0.5	mg/L	A5310 C
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Organic Carbon, Dissolved (DOC)	4.4	0.5	mg/L	A5310 C
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Organic Carbon, Dissolved (DOC)	3.7	0.5	mg/L	A5310 C
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Organic Carbon, Dissolved (DOC)	3.4	0.5	mg/L	A5310 C
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Organic Carbon, Dissolved (DOC)	5.1	0.5	mg/L	A5310 C
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Organic Carbon, Dissolved (DOC)	5.7	0.5	mg/L	A5310 C
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Organic Carbon, Dissolved (DOC)	4.4	0.5	mg/L	A5310 C
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Organic Carbon, Dissolved (DOC)	4.1	0.5	mg/L	A5310 C
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Organic Carbon, Dissolved (DOC)	4.1	0.5	mg/L	A5310 C
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Organic Carbon, Dissolved (DOC)	4.8	0.5	mg/L	A5310 C
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Organic Carbon, Dissolved (DOC)	4.9	0.5	mg/L	A5310 C
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Organic Carbon, Dissolved (DOC)	4.9	0.5	mg/L	A5310 C
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Organic Carbon, Dissolved (DOC)	4.6	0.5	mg/L	A5310 C
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Organic Carbon, Dissolved (DOC)	5	0.5	mg/L	A5310 C
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Organic Carbon, Dissolved (DOC)	4.5	0.5	mg/L	A5310 C
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Organic Carbon, Dissolved (DOC)	3.2	0.5	mg/L	A5310 C
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Organic Carbon, Dissolved (DOC)	4.5	0.5	mg/L	A5310 C
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Organic Carbon, Dissolved (DOC)	4.6	0.5	mg/L	A5310 C
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Organic Carbon,	4.6	0.5	mg/L	A5310 C

					Dissolved (DOC)				
	Field Blank	H15030394-010	26-Mar-15	18:00	Organic Carbon, Dissolved (DOC)	ND	0.5	mg/L	A5310 C
	Field Blank	H15030393-003	27-Mar-15	17:00	Organic Carbon, Dissolved (DOC)	ND	0.5	mg/L	A5310 C
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Organic Carbon, Dissolved (DOC)	5.8	0.5	mg/L	A5310 C
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Organic Carbon, Dissolved (DOC)	5.2	0.5	mg/L	A5310 C
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Organic Carbon, Dissolved (DOC)	4.6	0.5	mg/L	A5310 C
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Organic Carbon, Dissolved (DOC)	6.3	0.5	mg/L	A5310 C
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Organic Carbon, Dissolved (DOC)	6.7	0.5	mg/L	A5310 C
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Organic Carbon, Dissolved (DOC)	6	0.5	mg/L	A5310 C
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Organic Carbon, Dissolved (DOC)	6	0.5	mg/L	A5310 C
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Organic Carbon, Dissolved (DOC)	6.2	0.5	mg/L	A5310 C
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Organic Carbon, Dissolved (DOC)	7.7	0.5	mg/L	A5310 C
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Organic Carbon, Dissolved (DOC)	7.7	0.5	mg/L	A5310 C
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Organic Carbon, Dissolved (DOC)	6.5	0.5	mg/L	A5310 C
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Organic Carbon, Dissolved (DOC)	6	0.5	mg/L	A5310 C
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Organic Carbon, Dissolved (DOC)	6.1	0.5	mg/L	A5310 C
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Organic Carbon, Dissolved (DOC)	5.4	0.5	mg/L	A5310 C
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Organic Carbon, Dissolved (DOC)	5.2	0.5	mg/L	A5310 C
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Organic Carbon, Dissolved (DOC)	5.6	0.5	mg/L	A5310 C
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Organic Carbon, Dissolved (DOC)	5.7	0.5	mg/L	A5310 C
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Organic Carbon, Dissolved (DOC)	5.7	0.5	mg/L	A5310 C
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Organic Carbon, Dissolved (DOC)	5.7	0.5	mg/L	A5310 C
	Field Blank	H15050235-011	14-May-15	16:30	Organic Carbon, Dissolved (DOC)	ND	0.5	mg/L	A5310 C
	Field Blank	H15050235-002	15-May-15	15:30	Organic Carbon, Dissolved (DOC)	ND	0.5	mg/L	A5310 C
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Organic Carbon, Dissolved (DOC)	2.1	0.5	mg/L	A5310 C
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Organic Carbon, Dissolved (DOC)	2.3	0.5	mg/L	A5310 C
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Organic Carbon, Dissolved (DOC)	2.8	0.5	mg/L	A5310 C
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Organic Carbon, Dissolved (DOC)	5.2	0.5	mg/L	A5310 C
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Organic Carbon, Dissolved (DOC)	4.7	0.5	mg/L	A5310 C
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Organic Carbon, Dissolved (DOC)	4.3	0.5	mg/L	A5310 C
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Organic Carbon, Dissolved (DOC)	4.1	0.5	mg/L	A5310 C
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Organic Carbon, Dissolved (DOC)	4.3	0.5	mg/L	A5310 C
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Organic Carbon, Dissolved (DOC)	4.1	0.5	mg/L	A5310 C

SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Organic Carbon, Dissolved (DOC)	4	0.5	mg/L	A5310 C
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Organic Carbon, Dissolved (DOC)	3.8	0.5	mg/L	A5310 C
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Organic Carbon, Dissolved (DOC)	4.1	0.5	mg/L	A5310 C
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Organic Carbon, Dissolved (DOC)	4	0.5	mg/L	A5310 C
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Organic Carbon, Dissolved (DOC)	3.6	0.5	mg/L	A5310 C
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Organic Carbon, Dissolved (DOC)	3.6	0.5	mg/L	A5310 C
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Organic Carbon, Dissolved (DOC)	1.9	0.5	mg/L	A5310 C
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Organic Carbon, Dissolved (DOC)	3.5	0.5	mg/L	A5310 C
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Organic Carbon, Dissolved (DOC)	3.6	0.5	mg/L	A5310 C
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Organic Carbon, Dissolved (DOC)	3.5	0.5	mg/L	A5310 C
	Field Blank	H15090206-017	8-Sep-15	9:30	Organic Carbon, Dissolved (DOC)	ND	0.5	mg/L	A5310 C
	Field Blank	H15090206-009	9-Sep-15	8:45	Organic Carbon, Dissolved (DOC)	ND	0.5	mg/L	A5310 C
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Organic Carbon, Dissolved (DOC)	2.2	0.5	mg/L	A5310 C
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Organic Carbon, Dissolved (DOC)	2.9	0.5	mg/L	A5310 C
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Organic Carbon, Dissolved (DOC)	2.4	0.5	mg/L	A5310 C
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Organic Carbon, Dissolved (DOC)	4.6	0.5	mg/L	A5310 C
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Organic Carbon, Dissolved (DOC)	4.5	0.5	mg/L	A5310 C
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Organic Carbon, Dissolved (DOC)	3.4	0.5	mg/L	A5310 C
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Organic Carbon, Dissolved (DOC)	3.4	0.5	mg/L	A5310 C
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Organic Carbon, Dissolved (DOC)	3.5	0.5	mg/L	A5310 C
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Organic Carbon, Dissolved (DOC)	3.5	0.5	mg/L	A5310 C
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Organic Carbon, Dissolved (DOC)	3.5	0.5	mg/L	A5310 C
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Organic Carbon, Dissolved (DOC)	3.3	0.5	mg/L	A5310 C
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Organic Carbon, Dissolved (DOC)	3.4	0.5	mg/L	A5310 C
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Organic Carbon, Dissolved (DOC)	3.4	0.5	mg/L	A5310 C
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Organic Carbon, Dissolved (DOC)	3.4	0.5	mg/L	A5310 C
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Organic Carbon, Dissolved (DOC)	3	0.5	mg/L	A5310 C
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Organic Carbon, Dissolved (DOC)	1.6	0.5	mg/L	A5310 C
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Organic Carbon, Dissolved (DOC)	2.9	0.5	mg/L	A5310 C
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Organic Carbon, Dissolved (DOC)	2.8	0.5	mg/L	A5310 C
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Organic Carbon, Dissolved (DOC)	2.7	0.5	mg/L	A5310 C
	Field Blank	H15120093-018	3-Dec-15	9:30	Organic Carbon, Dissolved (DOC)	ND	0.5	mg/L	A5310 C
	Field Blank	H15120093-002	4-Dec-15	15:00	Organic Carbon,	ND	0.5	mg/L	A5310 C

					Dissolved (DOC)				
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Phosphorus, Total as P	0.087	0.003	mg/L	E365.1
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Phosphorus, Total as P	0.083	0.003	mg/L	E365.1
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Phosphorus, Total as P	0.112	0.003	mg/L	E365.1
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Phosphorus, Total as P	0.071	0.003	mg/L	E365.1
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Phosphorus, Total as P	0.399	0.003	mg/L	E365.1
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Phosphorus, Total as P	0.346	0.003	mg/L	E365.1
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Phosphorus, Total as P	0.284	0.003	mg/L	E365.1
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Phosphorus, Total as P	0.29	0.003	mg/L	E365.1
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Phosphorus, Total as P	0.334	0.003	mg/L	E365.1
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Phosphorus, Total as P	0.268	0.003	mg/L	E365.1
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Phosphorus, Total as P	0.277	0.003	mg/L	E365.1
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Phosphorus, Total as P	0.273	0.003	mg/L	E365.1
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Phosphorus, Total as P	0.269	0.003	mg/L	E365.1
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Phosphorus, Total as P	0.32	0.003	mg/L	E365.1
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Phosphorus, Total as P	0.245	0.003	mg/L	E365.1
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Phosphorus, Total as P	0.036	0.003	mg/L	E365.1
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Phosphorus, Total as P	0.237	0.003	mg/L	E365.1
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Phosphorus, Total as P	0.205	0.003	mg/L	E365.1
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Phosphorus, Total as P	0.194	0.003	mg/L	E365.1
	Field Blank	H15030394-010	26-Mar-15	18:00	Phosphorus, Total as P	ND	0.003	mg/L	E365.1
	Field Blank	H15030393-003	27-Mar-15	17:00	Phosphorus, Total as P	ND	0.003	mg/L	E365.1
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Phosphorus, Total as P	0.077	0.003	mg/L	E365.1
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Phosphorus, Total as P	0.096	0.003	mg/L	E365.1
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Phosphorus, Total as P	0.082	0.003	mg/L	E365.1
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Phosphorus, Total as P	0.339	0.003	mg/L	E365.1
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Phosphorus, Total as P	0.319	0.003	mg/L	E365.1
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Phosphorus, Total as P	0.339	0.003	mg/L	E365.1
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Phosphorus, Total as P	0.329	0.003	mg/L	E365.1
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Phosphorus, Total as P	0.365	0.003	mg/L	E365.1
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Phosphorus, Total as P	0.41	0.003	mg/L	E365.1
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Phosphorus, Total as P	0.389	0.003	mg/L	E365.1
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Phosphorus, Total as P	0.293	0.003	mg/L	E365.1
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Phosphorus, Total as P	0.288	0.003	mg/L	E365.1
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Phosphorus, Total as P	0.32	0.003	mg/L	E365.1
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Phosphorus, Total as P	0.159	0.003	mg/L	E365.1
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Phosphorus, Total as P	0.025	0.003	mg/L	E365.1
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Phosphorus, Total as P	0.152	0.003	mg/L	E365.1
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Phosphorus, Total as P	0.133	0.003	mg/L	E365.1
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Phosphorus, Total as P	0.143	0.003	mg/L	E365.1
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Phosphorus, Total as P	0.13	0.003	mg/L	E365.1
	Field Blank	H15050235-011	14-May-15	16:30	Phosphorus, Total as P	ND	0.003	mg/L	E365.1
	Field Blank	H15050235-002	15-May-15	15:30	Phosphorus, Total as P	ND	0.003	mg/L	E365.1
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Phosphorus, Total as P	0.074	0.003	mg/L	E365.1
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Phosphorus, Total as P	0.086	0.003	mg/L	E365.1
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Phosphorus, Total as P	0.059	0.003	mg/L	E365.1
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Phosphorus, Total as P	0.7	0.01	mg/L	E365.1
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Phosphorus, Total as P	0.494	0.003	mg/L	E365.1

SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Phosphorus, Total as P	0.425	0.003	mg/L	E365.1
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Phosphorus, Total as P	0.425	0.003	mg/L	E365.1
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Phosphorus, Total as P	0.412	0.003	mg/L	E365.1
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Phosphorus, Total as P	0.398	0.003	mg/L	E365.1
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Phosphorus, Total as P	0.354	0.003	mg/L	E365.1
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Phosphorus, Total as P	0.276	0.003	mg/L	E365.1
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Phosphorus, Total as P	0.315	0.003	mg/L	E365.1
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Phosphorus, Total as P	0.263	0.003	mg/L	E365.1
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Phosphorus, Total as P	0.191	0.003	mg/L	E365.1
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Phosphorus, Total as P	0.203	0.003	mg/L	E365.1
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Phosphorus, Total as P	0.024	0.003	mg/L	E365.1
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Phosphorus, Total as P	0.205	0.003	mg/L	E365.1
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Phosphorus, Total as P	0.205	0.003	mg/L	E365.1
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Phosphorus, Total as P	0.21	0.003	mg/L	E365.1
	Field Blank	H15090206-017	8-Sep-15	9:30	Phosphorus, Total as P	ND	0.003	mg/L	E365.1
	Field Blank	H15090206-009	9-Sep-15	8:45	Phosphorus, Total as P	ND	0.003	mg/L	E365.1
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Phosphorus, Total as P	0.085	0.003	mg/L	E365.1
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Phosphorus, Total as P	0.135	0.003	mg/L	E365.1
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Phosphorus, Total as P	0.086	0.003	mg/L	E365.1
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Phosphorus, Total as P	0.41	0.003	mg/L	E365.1
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Phosphorus, Total as P	0.298	0.003	mg/L	E365.1
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Phosphorus, Total as P	0.285	0.003	mg/L	E365.1
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Phosphorus, Total as P	0.306	0.003	mg/L	E365.1
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Phosphorus, Total as P	0.334	0.003	mg/L	E365.1
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Phosphorus, Total as P	0.306	0.003	mg/L	E365.1
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Phosphorus, Total as P	0.293	0.003	mg/L	E365.1
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Phosphorus, Total as P	0.327	0.003	mg/L	E365.1
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Phosphorus, Total as P	0.302	0.003	mg/L	E365.1
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Phosphorus, Total as P	0.302	0.003	mg/L	E365.1
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Phosphorus, Total as P	0.248	0.003	mg/L	E365.1
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Phosphorus, Total as P	0.2	0.003	mg/L	E365.1
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Phosphorus, Total as P	0.035	0.003	mg/L	E365.1
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Phosphorus, Total as P	0.198	0.003	mg/L	E365.1
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Phosphorus, Total as P	0.162	0.003	mg/L	E365.1
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Phosphorus, Total as P	0.16	0.003	mg/L	E365.1
	Field Blank	H15120093-018	3-Dec-15	9:30	Phosphorus, Total as P	ND	0.003	mg/L	E365.1
	Field Blank	H15120093-002	4-Dec-15	15:00	Phosphorus, Total as P	ND	0.003	mg/L	E365.1
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Potassium, Total Recoverable	2	1	mg/L	E200.7
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Potassium, Total Recoverable	2	1	mg/L	E200.7
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Potassium, Total Recoverable	3	1	mg/L	E200.7
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Potassium, Total Recoverable	3	1	mg/L	E200.7
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Potassium, Total	5	1	mg/L	E200.7

					Recoverable				
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Potassium, Total Recoverable	4	1	mg/L	E200.7
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Potassium, Total Recoverable	1	1	mg/L	E200.7
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Potassium, Total Recoverable	4	1	mg/L	E200.7
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Potassium, Total Recoverable	4	1	mg/L	E200.7
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Potassium, Total Recoverable	4	1	mg/L	E200.7
	Field Blank	H15030394-010	26-Mar-15	18:00	Potassium, Total Recoverable	ND	1	mg/L	E200.7
	Field Blank	H15030393-003	27-Mar-15	17:00	Potassium, Total Recoverable	ND	1	mg/L	E200.7
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Potassium, Total Recoverable	2	1	mg/L	E200.7
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Potassium, Total Recoverable	3	1	mg/L	E200.7
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Potassium, Total Recoverable	3	1	mg/L	E200.7
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Potassium, Total Recoverable	4	1	mg/L	E200.7
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Potassium, Total Recoverable	4	1	mg/L	E200.7
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Potassium, Total Recoverable	1	1	mg/L	E200.7
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Potassium, Total Recoverable	3	1	mg/L	E200.7
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Potassium, Total Recoverable	4	1	mg/L	E200.7
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Potassium, Total Recoverable	4	1	mg/L	E200.7
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Potassium, Total Recoverable	4	1	mg/L	E200.7

	Field Blank	H15050235-011	14-May-15	16:30	Potassium, Total Recoverable	ND	1	mg/L	E200.7
	Field Blank	H15050235-002	15-May-15	15:30	Potassium, Total Recoverable	ND	1	mg/L	E200.7
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Potassium, Total Recoverable	3	1	mg/L	E200.7
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Potassium, Total Recoverable	3	1	mg/L	E200.7
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Potassium, Total Recoverable	4	1	mg/L	E200.7
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Potassium, Total Recoverable	7	1	mg/L	E200.7
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Potassium, Total Recoverable	7	1	mg/L	E200.7
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Potassium, Total Recoverable	7	1	mg/L	E200.7
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Potassium, Total Recoverable	7	1	mg/L	E200.7
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Potassium, Total Recoverable	7	1	mg/L	E200.7
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Potassium, Total Recoverable	1	1	mg/L	E200.7
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Potassium, Total Recoverable	5	1	mg/L	E200.7
	Field Blank	H15090206-017	8-Sep-15	9:30	Potassium, Total Recoverable	ND	1	mg/L	E200.7
	Field Blank	H15090206-009	9-Sep-15	8:45	Potassium, Total Recoverable	ND	1	mg/L	E200.7
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Potassium, Total Recoverable	3	1	mg/L	E200.7
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Potassium, Total Recoverable	4	1	mg/L	E200.7
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Potassium, Total Recoverable	7	1	mg/L	E200.7
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Potassium, Total	7	1	mg/L	E200.7

					Recoverable				
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Potassium, Total Recoverable	7	1	mg/L	E200.7
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Potassium, Total Recoverable	7	1	mg/L	E200.7
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Potassium, Total Recoverable	7	1	mg/L	E200.7
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Potassium, Total Recoverable	7	1	mg/L	E200.7
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Potassium, Total Recoverable	1	1	mg/L	E200.7
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Potassium, Total Recoverable	5	1	mg/L	E200.7
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Potassium, Total Recoverable	6	1	mg/L	E200.7
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Potassium, Total Recoverable	5	1	mg/L	E200.7
	Field Blank	H15120093-018	3-Dec-15	9:30	Potassium, Total Recoverable	ND	1	mg/L	E200.7
	Field Blank	H15120093-002	4-Dec-15	15:00	Potassium, Total Recoverable	ND	1	mg/L	E200.7
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Selenium, Dissolved	ND	0.001	mg/L	E200.8

SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Selenium, Dissolved	ND	0.001	mg/L	E200.8

SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Selenium, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Selenium, Dissolved	ND	0.001	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8

SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Selenium, Total	ND	0.001	mg/L	E200.8

					Recoverable				
	Field Blank	H15090206-009	9-Sep-15	8:45	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Selenium, Total Recoverable	ND	0.001	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Silver, Dissolved	ND	0.0002	mg/L	E200.8

SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Silver, Dissolved	ND	0.0002	mg/L	E200.8

SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Silver, Dissolved	ND	0.0002	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Silver, Dissolved	ND	0.0002	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Silver, Total	ND	0.0002	mg/L	E200.8

					Recoverable				
	Field Blank	H15030394-010	26-Mar-15	18:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Silver, Total Recoverable	0.0004	0.0002	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Silver, Total Recoverable	0.0004	0.0002	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Silver, Total Recoverable	0.0004	0.0002	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Silver, Total Recoverable	0.0002	0.0002	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8

SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Silver, Total Recoverable	ND	0.0002	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Silver, Total	ND	0.0002	mg/L	E200.8

					Recoverable				
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Sodium, Total Recoverable	10	1	mg/L	E200.7
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Sodium, Total Recoverable	10	1	mg/L	E200.7
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Sodium, Total Recoverable	12	1	mg/L	E200.7
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Sodium, Total Recoverable	18	1	mg/L	E200.7
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Sodium, Total Recoverable	22	1	mg/L	E200.7
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Sodium, Total Recoverable	24	1	mg/L	E200.7
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Sodium, Total Recoverable	24	1	mg/L	E200.7
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Sodium, Total Recoverable	24	1	mg/L	E200.7
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Sodium, Total Recoverable	29	1	mg/L	E200.7
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Sodium, Total Recoverable	24	1	mg/L	E200.7
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Sodium, Total Recoverable	25	1	mg/L	E200.7
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Sodium, Total Recoverable	25	1	mg/L	E200.7
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Sodium, Total Recoverable	25	1	mg/L	E200.7
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Sodium, Total Recoverable	25	1	mg/L	E200.7
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Sodium, Total Recoverable	19	1	mg/L	E200.7
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Sodium, Total Recoverable	4	1	mg/L	E200.7
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Sodium, Total Recoverable	19	1	mg/L	E200.7
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Sodium, Total Recoverable	20	1	mg/L	E200.7
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Sodium, Total Recoverable	22	1	mg/L	E200.7
	Field Blank	H15030394-010	26-Mar-15	18:00	Sodium, Total Recoverable	ND	1	mg/L	E200.7
	Field Blank	H15030393-003	27-Mar-15	17:00	Sodium, Total Recoverable	ND	1	mg/L	E200.7
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Sodium, Total Recoverable	10	1	mg/L	E200.7
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Sodium, Total Recoverable	12	1	mg/L	E200.7
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Sodium, Total Recoverable	16	1	mg/L	E200.7
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Sodium, Total Recoverable	20	1	mg/L	E200.7
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Sodium, Total Recoverable	23	1	mg/L	E200.7
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Sodium, Total Recoverable	23	1	mg/L	E200.7
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Sodium, Total Recoverable	23	1	mg/L	E200.7
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Sodium, Total Recoverable	29	1	mg/L	E200.7
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Sodium, Total Recoverable	29	1	mg/L	E200.7
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Sodium, Total Recoverable	29	1	mg/L	E200.7
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Sodium, Total Recoverable	27	1	mg/L	E200.7

SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Sodium, Total Recoverable	27	1	mg/L	E200.7
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Sodium, Total Recoverable	30	1	mg/L	E200.7
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Sodium, Total Recoverable	17	1	mg/L	E200.7
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Sodium, Total Recoverable	3	1	mg/L	E200.7
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Sodium, Total Recoverable	17	1	mg/L	E200.7
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Sodium, Total Recoverable	17	1	mg/L	E200.7
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Sodium, Total Recoverable	18	1	mg/L	E200.7
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Sodium, Total Recoverable	18	1	mg/L	E200.7
	Field Blank	H15050235-011	14-May-15	16:30	Sodium, Total Recoverable	ND	1	mg/L	E200.7
	Field Blank	H15050235-002	15-May-15	15:30	Sodium, Total Recoverable	ND	1	mg/L	E200.7
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Sodium, Total Recoverable	11	1	mg/L	E200.7
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Sodium, Total Recoverable	15	1	mg/L	E200.7
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Sodium, Total Recoverable	21	1	mg/L	E200.7
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Sodium, Total Recoverable	26	1	mg/L	E200.7
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Sodium, Total Recoverable	28	1	mg/L	E200.7
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Sodium, Total Recoverable	28	1	mg/L	E200.7
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Sodium, Total Recoverable	29	1	mg/L	E200.7
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Sodium, Total Recoverable	28	1	mg/L	E200.7
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Sodium, Total Recoverable	33	1	mg/L	E200.7
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Sodium, Total Recoverable	32	1	mg/L	E200.7
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Sodium, Total Recoverable	30	1	mg/L	E200.7
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Sodium, Total Recoverable	31	1	mg/L	E200.7
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Sodium, Total Recoverable	30	1	mg/L	E200.7
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Sodium, Total Recoverable	23	1	mg/L	E200.7
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Sodium, Total Recoverable	23	1	mg/L	E200.7
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Sodium, Total Recoverable	4	1	mg/L	E200.7
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Sodium, Total Recoverable	23	1	mg/L	E200.7
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Sodium, Total Recoverable	25	1	mg/L	E200.7
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Sodium, Total Recoverable	26	1	mg/L	E200.7
	Field Blank	H15090206-017	8-Sep-15	9:30	Sodium, Total Recoverable	ND	1	mg/L	E200.7
	Field Blank	H15090206-009	9-Sep-15	8:45	Sodium, Total Recoverable	ND	1	mg/L	E200.7
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Sodium, Total Recoverable	13	1	mg/L	E200.7
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Sodium, Total	24	1	mg/L	E200.7

					Recoverable				
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Sodium, Total Recoverable	31	1	mg/L	E200.7
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Sodium, Total Recoverable	33	1	mg/L	E200.7
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Sodium, Total Recoverable	30	1	mg/L	E200.7
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Sodium, Total Recoverable	28	1	mg/L	E200.7
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Sodium, Total Recoverable	30	1	mg/L	E200.7
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Sodium, Total Recoverable	29	1	mg/L	E200.7
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Sodium, Total Recoverable	36	1	mg/L	E200.7
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Sodium, Total Recoverable	36	1	mg/L	E200.7
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Sodium, Total Recoverable	35	1	mg/L	E200.7
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Sodium, Total Recoverable	37	1	mg/L	E200.7
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Sodium, Total Recoverable	37	1	mg/L	E200.7
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Sodium, Total Recoverable	35	1	mg/L	E200.7
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Sodium, Total Recoverable	28	1	mg/L	E200.7
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Sodium, Total Recoverable	5	1	mg/L	E200.7
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Sodium, Total Recoverable	27	1	mg/L	E200.7
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Sodium, Total Recoverable	29	1	mg/L	E200.7
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Sodium, Total Recoverable	29	1	mg/L	E200.7
	Field Blank	H15120093-018	3-Dec-15	9:30	Sodium, Total Recoverable	ND	1	mg/L	E200.7
	Field Blank	H15120093-002	4-Dec-15	15:00	Sodium, Total Recoverable	ND	1	mg/L	E200.7
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Solids, Total Suspended TSS @ 105 C	8	1	mg/L	A2540 D
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Solids, Total Suspended TSS @ 105 C	9	1	mg/L	A2540 D
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Solids, Total Suspended TSS @ 105 C	8	2	mg/L	A2540 D
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Solids, Total Suspended TSS @ 105 C	7	1	mg/L	A2540 D
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Solids, Total Suspended TSS @ 105 C	8	1	mg/L	A2540 D
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Solids, Total Suspended TSS @ 105 C	8	2	mg/L	A2540 D
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Solids, Total Suspended TSS @ 105 C	6	1	mg/L	A2540 D
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Solids, Total Suspended TSS @ 105 C	6	1	mg/L	A2540 D
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Solids, Total Suspended TSS @ 105	9	1	mg/L	A2540 D

					C				
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Solids, Total Suspended TSS @ 105 C	15	1	mg/L	A2540 D
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Solids, Total Suspended TSS @ 105 C	12	1	mg/L	A2540 D
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Solids, Total Suspended TSS @ 105 C	10	1	mg/L	A2540 D
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Solids, Total Suspended TSS @ 105 C	12	1	mg/L	A2540 D
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Solids, Total Suspended TSS @ 105 C	15	1	mg/L	A2540 D
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Solids, Total Suspended TSS @ 105 C	11	1	mg/L	A2540 D
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Solids, Total Suspended TSS @ 105 C	5	1	mg/L	A2540 D
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Solids, Total Suspended TSS @ 105 C	8	1	mg/L	A2540 D
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Solids, Total Suspended TSS @ 105 C	11	1	mg/L	A2540 D
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Solids, Total Suspended TSS @ 105 C	11	1	mg/L	A2540 D
	Field Blank	H15030394-010	26-Mar-15	18:00	Solids, Total Suspended TSS @ 105 C	ND	1	mg/L	A2540 D
	Field Blank	H15030393-003	27-Mar-15	17:00	Solids, Total Suspended TSS @ 105 C	ND	1	mg/L	A2540 D
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Solids, Total Suspended TSS @ 105 C	6	2	mg/L	A2540 D
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Solids, Total Suspended TSS @ 105 C	11	1	mg/L	A2540 D
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Solids, Total Suspended TSS @ 105 C	12	1	mg/L	A2540 D
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Solids, Total Suspended TSS @ 105 C	10	1	mg/L	A2540 D
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Solids, Total Suspended TSS @ 105 C	8	1	mg/L	A2540 D
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Solids, Total Suspended TSS @ 105 C	9	1	mg/L	A2540 D
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Solids, Total Suspended TSS @ 105 C	9	1	mg/L	A2540 D
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Solids, Total Suspended TSS @ 105 C	12	1	mg/L	A2540 D
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Solids, Total Suspended TSS @ 105 C	19	1	mg/L	A2540 D
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Solids, Total	19	1	mg/L	A2540 D

					Suspended TSS @ 105 C				
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Solids, Total Suspended TSS @ 105 C	24	1	mg/L	A2540 D
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Solids, Total Suspended TSS @ 105 C	22	1	mg/L	A2540 D
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Solids, Total Suspended TSS @ 105 C	17	1	mg/L	A2540 D
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Solids, Total Suspended TSS @ 105 C	12	1	mg/L	A2540 D
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Solids, Total Suspended TSS @ 105 C	8	1	mg/L	A2540 D
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Solids, Total Suspended TSS @ 105 C	9	1	mg/L	A2540 D
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Solids, Total Suspended TSS @ 105 C	17	1	mg/L	A2540 D
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Solids, Total Suspended TSS @ 105 C	17	1	mg/L	A2540 D
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Solids, Total Suspended TSS @ 105 C	18	2	mg/L	A2540 D
	Field Blank	H15050235-011	14-May-15	16:30	Solids, Total Suspended TSS @ 105 C	ND	1	mg/L	A2540 D
	Field Blank	H15050235-002	15-May-15	15:30	Solids, Total Suspended TSS @ 105 C	ND	1	mg/L	A2540 D
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Solids, Total Suspended TSS @ 105 C	4	2	mg/L	A2540 D
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Solids, Total Suspended TSS @ 105 C	6	1	mg/L	A2540 D
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Solids, Total Suspended TSS @ 105 C	5	1	mg/L	A2540 D
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Solids, Total Suspended TSS @ 105 C	6	1	mg/L	A2540 D
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Solids, Total Suspended TSS @ 105 C	3	1	mg/L	A2540 D
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Solids, Total Suspended TSS @ 105 C	5	1	mg/L	A2540 D
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Solids, Total Suspended TSS @ 105 C	5	1	mg/L	A2540 D
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Solids, Total Suspended TSS @ 105 C	5	1	mg/L	A2540 D
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Solids, Total Suspended TSS @ 105 C	11	1	mg/L	A2540 D
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Solids, Total Suspended TSS @ 105 C	12	2	mg/L	A2540 D

SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Solids, Total Suspended TSS @ 105 C	19	1	mg/L	A2540 D
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Solids, Total Suspended TSS @ 105 C	21	1	mg/L	A2540 D
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Solids, Total Suspended TSS @ 105 C	9	1	mg/L	A2540 D
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Solids, Total Suspended TSS @ 105 C	6	1	mg/L	A2540 D
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Solids, Total Suspended TSS @ 105 C	6	1	mg/L	A2540 D
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Solids, Total Suspended TSS @ 105 C	2	1	mg/L	A2540 D
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Solids, Total Suspended TSS @ 105 C	5	1	mg/L	A2540 D
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Solids, Total Suspended TSS @ 105 C	6	1	mg/L	A2540 D
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Solids, Total Suspended TSS @ 105 C	8	2	mg/L	A2540 D
	Field Blank	H15090206-017	8-Sep-15	9:30	Solids, Total Suspended TSS @ 105 C	ND	1	mg/L	A2540 D
	Field Blank	H15090206-009	9-Sep-15	8:45	Solids, Total Suspended TSS @ 105 C	ND	1	mg/L	A2540 D
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Solids, Total Suspended TSS @ 105 C	9	1	mg/L	A2540 D
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Solids, Total Suspended TSS @ 105 C	27	2	mg/L	A2540 D
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Solids, Total Suspended TSS @ 105 C	25	1	mg/L	A2540 D
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Solids, Total Suspended TSS @ 105 C	18	1	mg/L	A2540 D
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Solids, Total Suspended TSS @ 105 C	27	1	mg/L	A2540 D
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Solids, Total Suspended TSS @ 105 C	40	1	mg/L	A2540 D
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Solids, Total Suspended TSS @ 105 C	41	1	mg/L	A2540 D
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Solids, Total Suspended TSS @ 105 C	44	1	mg/L	A2540 D
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Solids, Total Suspended TSS @ 105 C	16	1	mg/L	A2540 D
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Solids, Total Suspended TSS @ 105 C	17	1	mg/L	A2540 D
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Solids, Total Suspended TSS @ 105 C	27	1	mg/L	A2540 D

SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Solids, Total Suspended TSS @ 105 C	25	1	mg/L	A2540 D
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Solids, Total Suspended TSS @ 105 C	26	2	mg/L	A2540 D
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Solids, Total Suspended TSS @ 105 C	4	1	mg/L	A2540 D
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Solids, Total Suspended TSS @ 105 C	4	1	mg/L	A2540 D
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Solids, Total Suspended TSS @ 105 C	3	1	mg/L	A2540 D
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Solids, Total Suspended TSS @ 105 C	12	1	mg/L	A2540 D
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Solids, Total Suspended TSS @ 105 C	3	1	mg/L	A2540 D
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Solids, Total Suspended TSS @ 105 C	6	1	mg/L	A2540 D
	Field Blank	H15120093-018	3-Dec-15	9:30	Solids, Total Suspended TSS @ 105 C	ND	1	mg/L	A2540 D
	Field Blank	H15120093-002	4-Dec-15	15:00	Solids, Total Suspended TSS @ 105 C	ND	1	mg/L	A2540 D
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Solids, Volatile Suspended	3	1	mg/L	A2540 E
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Solids, Volatile Suspended	3	1	mg/L	A2540 E
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Solids, Volatile Suspended	5	1	mg/L	A2540 E
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Solids, Volatile Suspended	3	1	mg/L	A2540 E
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Solids, Volatile Suspended	5	1	mg/L	A2540 E
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Solids, Volatile Suspended	5	1	mg/L	A2540 E
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Solids, Volatile Suspended	4	1	mg/L	A2540 E
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Solids, Volatile Suspended	4	1	mg/L	A2540 E
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Solids, Volatile Suspended	4	1	mg/L	A2540 E
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Solids, Volatile Suspended	5	1	mg/L	A2540 E
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Solids, Volatile Suspended	4	1	mg/L	A2540 E
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Solids, Volatile Suspended	4	1	mg/L	A2540 E
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Solids, Volatile Suspended	6	1	mg/L	A2540 E
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Solids, Volatile Suspended	6	1	mg/L	A2540 E
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Solids, Volatile Suspended	5	1	mg/L	A2540 E
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Solids, Volatile Suspended	3	1	mg/L	A2540 E
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Solids, Volatile Suspended	3	1	mg/L	A2540 E
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Solids, Volatile	4	1	mg/L	A2540 E

					Suspended				
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Solids, Volatile Suspended	4	1	mg/L	A2540 E
	Field Blank	H15030394-010	26-Mar-15	18:00	Solids, Volatile Suspended	1	1	mg/L	A2540 E
	Field Blank	H15030393-003	27-Mar-15	17:00	Solids, Volatile Suspended	ND	1	mg/L	A2540 E
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Solids, Volatile Suspended	3	1	mg/L	A2540 E
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Solids, Volatile Suspended	4	1	mg/L	A2540 E
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Solids, Volatile Suspended	4	1	mg/L	A2540 E
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Solids, Volatile Suspended	4	1	mg/L	A2540 E
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Solids, Volatile Suspended	4	1	mg/L	A2540 E
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Solids, Volatile Suspended	4	1	mg/L	A2540 E
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Solids, Volatile Suspended	4	1	mg/L	A2540 E
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Solids, Volatile Suspended	5	1	mg/L	A2540 E
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Solids, Volatile Suspended	6	1	mg/L	A2540 E
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Solids, Volatile Suspended	7	1	mg/L	A2540 E
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Solids, Volatile Suspended	7	1	mg/L	A2540 E
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Solids, Volatile Suspended	7	1	mg/L	A2540 E
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Solids, Volatile Suspended	7	1	mg/L	A2540 E
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Solids, Volatile Suspended	5	1	mg/L	A2540 E
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Solids, Volatile Suspended	3	1	mg/L	A2540 E
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Solids, Volatile Suspended	4	1	mg/L	A2540 E
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Solids, Volatile Suspended	6	1	mg/L	A2540 E
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Solids, Volatile Suspended	6	1	mg/L	A2540 E
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Solids, Volatile Suspended	7	1	mg/L	A2540 E
	Field Blank	H15050235-011	14-May-15	16:30	Solids, Volatile Suspended	ND	1	mg/L	A2540 E
	Field Blank	H15050235-002	15-May-15	15:30	Solids, Volatile Suspended	ND	1	mg/L	A2540 E
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Solids, Volatile Suspended	3	1	mg/L	A2540 E
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Solids, Volatile Suspended	2	1	mg/L	A2540 E
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Solids, Volatile Suspended	2	1	mg/L	A2540 E
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Solids, Volatile Suspended	3	1	mg/L	A2540 E
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Solids, Volatile Suspended	2	1	mg/L	A2540 E
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Solids, Volatile Suspended	2	1	mg/L	A2540 E
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Solids, Volatile Suspended	2	1	mg/L	A2540 E
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Solids, Volatile Suspended	2	1	mg/L	A2540 E

SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Solids, Volatile Suspended	4	1	mg/L	A2540 E
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Solids, Volatile Suspended	5	1	mg/L	A2540 E
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Solids, Volatile Suspended	5	1	mg/L	A2540 E
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Solids, Volatile Suspended	5	1	mg/L	A2540 E
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Solids, Volatile Suspended	3	1	mg/L	A2540 E
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Solids, Volatile Suspended	2	1	mg/L	A2540 E
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Solids, Volatile Suspended	3	1	mg/L	A2540 E
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Solids, Volatile Suspended	2	1	mg/L	A2540 E
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Solids, Volatile Suspended	2	1	mg/L	A2540 E
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Solids, Volatile Suspended	2	1	mg/L	A2540 E
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Solids, Volatile Suspended	3	1	mg/L	A2540 E
	Field Blank	H15090206-017	8-Sep-15	9:30	Solids, Volatile Suspended	ND	1	mg/L	A2540 E
	Field Blank	H15090206-009	9-Sep-15	8:45	Solids, Volatile Suspended	ND	1	mg/L	A2540 E
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Solids, Volatile Suspended	2	1	mg/L	A2540 E
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Solids, Volatile Suspended	7	1	mg/L	A2540 E
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Solids, Volatile Suspended	6	1	mg/L	A2540 E
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Solids, Volatile Suspended	6	1	mg/L	A2540 E
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Solids, Volatile Suspended	8	1	mg/L	A2540 E
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Solids, Volatile Suspended	11	1	mg/L	A2540 E
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Solids, Volatile Suspended	11	1	mg/L	A2540 E
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Solids, Volatile Suspended	10	1	mg/L	A2540 E
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Solids, Volatile Suspended	5	1	mg/L	A2540 E
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Solids, Volatile Suspended	5	1	mg/L	A2540 E
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Solids, Volatile Suspended	7	1	mg/L	A2540 E
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Solids, Volatile Suspended	7	1	mg/L	A2540 E
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Solids, Volatile Suspended	8	1	mg/L	A2540 E
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Solids, Volatile Suspended	2	1	mg/L	A2540 E
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Solids, Volatile Suspended	2	1	mg/L	A2540 E
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Solids, Volatile Suspended	2	1	mg/L	A2540 E
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Solids, Volatile Suspended	3	1	mg/L	A2540 E
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Solids, Volatile Suspended	1	1	mg/L	A2540 E
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Solids, Volatile Suspended	2	1	mg/L	A2540 E
	Field Blank	H15120093-018	3-Dec-15	9:30	Solids, Volatile	ND	1	mg/L	A2540 E

					Suspended				
	Field Blank	H15120093-002	4-Dec-15	15:00	Solids, Volatile Suspended	ND	1	mg/L	A2540 E
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Sulfate	18	1	mg/L	E300.0
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Sulfate	18	1	mg/L	E300.0
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Sulfate	27	1	mg/L	E300.0
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Sulfate	66	1	mg/L	E300.0
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Sulfate	58	1	mg/L	E300.0
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Sulfate	66	1	mg/L	E300.0
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Sulfate	74	1	mg/L	E300.0
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Sulfate	75	1	mg/L	E300.0
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Sulfate	87	1	mg/L	E300.0
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Sulfate	62	1	mg/L	E300.0
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Sulfate	66	1	mg/L	E300.0
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Sulfate	65	1	mg/L	E300.0
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Sulfate	67	1	mg/L	E300.0
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Sulfate	67	1	mg/L	E300.0
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Sulfate	53	1	mg/L	E300.0
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Sulfate	21	1	mg/L	E300.0
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Sulfate	53	1	mg/L	E300.0
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Sulfate	57	1	mg/L	E300.0
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Sulfate	60	1	mg/L	E300.0
	Field Blank	H15030394-010	26-Mar-15	18:00	Sulfate	ND	1	mg/L	E300.0
	Field Blank	H15030393-003	27-Mar-15	17:00	Sulfate	ND	1	mg/L	E300.0
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Sulfate	15	1	mg/L	E300.0
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Sulfate	19	1	mg/L	E300.0
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Sulfate	54	1	mg/L	E300.0
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Sulfate	53	1	mg/L	E300.0
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Sulfate	61	1	mg/L	E300.0
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Sulfate	68	1	mg/L	E300.0
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Sulfate	68	1	mg/L	E300.0
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Sulfate	81	1	mg/L	E300.0
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Sulfate	72	1	mg/L	E300.0
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Sulfate	72	1	mg/L	E300.0
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Sulfate	68	1	mg/L	E300.0
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Sulfate	69	1	mg/L	E300.0
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Sulfate	75	1	mg/L	E300.0
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Sulfate	48	1	mg/L	E300.0
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Sulfate	21	1	mg/L	E300.0
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Sulfate	48	1	mg/L	E300.0
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Sulfate	51	1	mg/L	E300.0
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Sulfate	51	1	mg/L	E300.0
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Sulfate	53	1	mg/L	E300.0
	Field Blank	H15050235-011	14-May-15	16:30	Sulfate	ND	1	mg/L	E300.0
	Field Blank	H15050235-002	15-May-15	15:30	Sulfate	ND	1	mg/L	E300.0
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Sulfate	30	1	mg/L	E300.0
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Sulfate	36	1	mg/L	E300.0
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Sulfate	112	1	mg/L	E300.0
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Sulfate	89	1	mg/L	E300.0

SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Sulfate	93	1	mg/L	E300.0
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Sulfate	99	1	mg/L	E300.0
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Sulfate	98	1	mg/L	E300.0
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Sulfate	98	1	mg/L	E300.0
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Sulfate	110	1	mg/L	E300.0
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Sulfate	109	1	mg/L	E300.0
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Sulfate	99	1	mg/L	E300.0
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Sulfate	96	1	mg/L	E300.0
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Sulfate	92	1	mg/L	E300.0
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Sulfate	73	1	mg/L	E300.0
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Sulfate	73	1	mg/L	E300.0
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Sulfate	28	1	mg/L	E300.0
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Sulfate	76	1	mg/L	E300.0
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Sulfate	81	1	mg/L	E300.0
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Sulfate	82	1	mg/L	E300.0
	Field Blank	H15090206-017	8-Sep-15	9:30	Sulfate	ND	1	mg/L	E300.0
	Field Blank	H15090206-009	9-Sep-15	8:45	Sulfate	ND	1	mg/L	E300.0
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Sulfate	24	1	mg/L	E300.0
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Sulfate	31	1	mg/L	E300.0
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Sulfate	91	1	mg/L	E300.0
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Sulfate	75	1	mg/L	E300.0
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Sulfate	78	1	mg/L	E300.0
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Sulfate	85	1	mg/L	E300.0
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Sulfate	86	1	mg/L	E300.0
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Sulfate	85	1	mg/L	E300.0
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Sulfate	92	1	mg/L	E300.0
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Sulfate	87	1	mg/L	E300.0
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Sulfate	93	1	mg/L	E300.0
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Sulfate	90	1	mg/L	E300.0
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Sulfate	93	1	mg/L	E300.0
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Sulfate	94	1	mg/L	E300.0
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Sulfate	76	1	mg/L	E300.0
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Sulfate	20	1	mg/L	E300.0
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Sulfate	78	1	mg/L	E300.0
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Sulfate	82	1	mg/L	E300.0
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Sulfate	80	1	mg/L	E300.0
	Field Blank	H15120093-018	3-Dec-15	9:30	Sulfate	ND	1	mg/L	E300.0
	Field Blank	H15120093-002	4-Dec-15	15:00	Sulfate	ND	1	mg/L	E300.0
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Uranium, Dissolved	0.0028	0.0002	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Uranium, Dissolved	0.0027	0.0002	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Uranium, Dissolved	0.004	0.0002	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Uranium, Dissolved	0.0043	0.0002	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Uranium, Dissolved	0.004	0.0002	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Uranium, Dissolved	0.0043	0.0002	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Uranium, Dissolved	0.0047	0.0002	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Uranium, Dissolved	0.0045	0.0002	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Uranium, Dissolved	0.0051	0.0002	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Uranium, Dissolved	0.0036	0.0002	mg/L	E200.8

SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Uranium, Dissolved	0.0039	0.0002	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Uranium, Dissolved	0.0039	0.0002	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Uranium, Dissolved	0.0039	0.0002	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Uranium, Dissolved	0.0039	0.0002	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Uranium, Dissolved	0.003	0.0002	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Uranium, Dissolved	0.0007	0.0002	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Uranium, Dissolved	0.003	0.0002	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Uranium, Dissolved	0.0029	0.0002	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Uranium, Dissolved	0.0032	0.0002	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Uranium, Dissolved	ND	0.0002	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Uranium, Dissolved	ND	0.0002	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Uranium, Dissolved	0.0021	0.0002	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Uranium, Dissolved	0.0028	0.0002	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Uranium, Dissolved	0.0033	0.0002	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Uranium, Dissolved	0.003	0.0002	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Uranium, Dissolved	0.0033	0.0002	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Uranium, Dissolved	0.0038	0.0002	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Uranium, Dissolved	0.0037	0.0002	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Uranium, Dissolved	0.004	0.0002	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Uranium, Dissolved	0.0036	0.0002	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Uranium, Dissolved	0.0036	0.0002	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Uranium, Dissolved	0.0041	0.0002	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Uranium, Dissolved	0.0043	0.0002	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Uranium, Dissolved	0.004	0.0002	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Uranium, Dissolved	0.0021	0.0002	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Uranium, Dissolved	0.0004	0.0002	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Uranium, Dissolved	0.0019	0.0002	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Uranium, Dissolved	0.0022	0.0002	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Uranium, Dissolved	0.0022	0.0002	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Uranium, Dissolved	0.0026	0.0002	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Uranium, Dissolved	ND	0.0002	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Uranium, Dissolved	ND	0.0002	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Uranium, Dissolved	0.0035	0.0002	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Uranium, Dissolved	0.0043	0.0002	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Uranium, Dissolved	0.0051	0.0002	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Uranium, Dissolved	0.0041	0.0002	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Uranium, Dissolved	0.0038	0.0002	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Uranium, Dissolved	0.0048	0.0002	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Uranium, Dissolved	0.0047	0.0002	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Uranium, Dissolved	0.0047	0.0002	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Uranium, Dissolved	0.0046	0.0002	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Uranium, Dissolved	0.0043	0.0002	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Uranium, Dissolved	0.0052	0.0002	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Uranium, Dissolved	0.0052	0.0002	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Uranium, Dissolved	0.0043	0.0002	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Uranium, Dissolved	0.0031	0.0002	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Uranium, Dissolved	0.0031	0.0002	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Uranium, Dissolved	0.0007	0.0002	mg/L	E200.8

SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Uranium, Dissolved	0.0036	0.0002	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Uranium, Dissolved	0.0038	0.0002	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Uranium, Dissolved	0.004	0.0002	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Uranium, Dissolved	ND	0.0002	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Uranium, Dissolved	ND	0.0002	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Uranium, Dissolved	0.003	0.0002	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Uranium, Dissolved	0.0041	0.0002	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Uranium, Dissolved	0.0054	0.0002	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Uranium, Dissolved	0.0045	0.0002	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Uranium, Dissolved	0.0048	0.0002	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Uranium, Dissolved	0.0054	0.0002	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Uranium, Dissolved	0.0054	0.0002	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Uranium, Dissolved	0.0054	0.0002	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Uranium, Dissolved	0.0058	0.0002	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Uranium, Dissolved	0.0059	0.0002	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Uranium, Dissolved	0.0061	0.0002	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Uranium, Dissolved	0.0061	0.0002	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Uranium, Dissolved	0.006	0.0002	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Uranium, Dissolved	0.006	0.0002	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Uranium, Dissolved	0.0048	0.0002	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Uranium, Dissolved	0.0008	0.0002	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Uranium, Dissolved	0.0049	0.0002	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Uranium, Dissolved	0.0047	0.0002	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Uranium, Dissolved	0.005	0.0002	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Uranium, Dissolved	ND	0.0002	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Uranium, Dissolved	ND	0.0002	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Uranium, Total Recoverable	0.003	0.0002	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Uranium, Total Recoverable	0.003	0.0002	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Uranium, Total Recoverable	0.0043	0.0002	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Uranium, Total Recoverable	0.0044	0.0002	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Uranium, Total Recoverable	0.0039	0.0002	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Uranium, Total Recoverable	0.0042	0.0002	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Uranium, Total Recoverable	0.0046	0.0002	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Uranium, Total Recoverable	0.0046	0.0002	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Uranium, Total Recoverable	0.0052	0.0002	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Uranium, Total Recoverable	0.0038	0.0002	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Uranium, Total Recoverable	0.0041	0.0002	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Uranium, Total Recoverable	0.004	0.0002	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Uranium, Total Recoverable	0.0041	0.0002	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Uranium, Total Recoverable	0.0042	0.0002	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Uranium, Total Recoverable	0.003	0.0002	mg/L	E200.8

SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Uranium, Total Recoverable	0.0008	0.0002	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Uranium, Total Recoverable	0.003	0.0002	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Uranium, Total Recoverable	0.0029	0.0002	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Uranium, Total Recoverable	0.0033	0.0002	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Uranium, Total Recoverable	ND	0.0002	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Uranium, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Uranium, Total Recoverable	0.0023	0.0002	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Uranium, Total Recoverable	0.0031	0.0002	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Uranium, Total Recoverable	0.0035	0.0002	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Uranium, Total Recoverable	0.0033	0.0002	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Uranium, Total Recoverable	0.0036	0.0002	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Uranium, Total Recoverable	0.004	0.0002	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Uranium, Total Recoverable	0.0039	0.0002	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Uranium, Total Recoverable	0.0043	0.0002	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Uranium, Total Recoverable	0.0038	0.0002	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Uranium, Total Recoverable	0.0038	0.0002	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Uranium, Total Recoverable	0.0044	0.0002	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Uranium, Total Recoverable	0.0046	0.0002	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Uranium, Total Recoverable	0.0043	0.0002	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Uranium, Total Recoverable	0.0023	0.0002	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Uranium, Total Recoverable	0.0005	0.0002	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Uranium, Total Recoverable	0.002	0.0002	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Uranium, Total Recoverable	0.0024	0.0002	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Uranium, Total Recoverable	0.0025	0.0002	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Uranium, Total Recoverable	0.0028	0.0002	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Uranium, Total Recoverable	ND	0.0002	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Uranium, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Uranium, Total Recoverable	0.0037	0.0002	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Uranium, Total Recoverable	0.0048	0.0002	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Uranium, Total Recoverable	0.0053	0.0002	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Uranium, Total Recoverable	0.0044	0.0002	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Uranium, Total Recoverable	0.0042	0.0002	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Uranium, Total	0.0053	0.0002	mg/L	E200.8

					Recoverable				
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Uranium, Total Recoverable	0.0052	0.0002	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Uranium, Total Recoverable	0.0051	0.0002	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Uranium, Total Recoverable	0.005	0.0002	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Uranium, Total Recoverable	0.0049	0.0002	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Uranium, Total Recoverable	0.0059	0.0002	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Uranium, Total Recoverable	0.0057	0.0002	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Uranium, Total Recoverable	0.0047	0.0002	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Uranium, Total Recoverable	0.0034	0.0002	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Uranium, Total Recoverable	0.0034	0.0002	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Uranium, Total Recoverable	0.0007	0.0002	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Uranium, Total Recoverable	0.004	0.0002	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Uranium, Total Recoverable	0.0043	0.0002	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Uranium, Total Recoverable	0.0046	0.0002	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Uranium, Total Recoverable	ND	0.0002	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Uranium, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Uranium, Total Recoverable	0.0031	0.0002	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Uranium, Total Recoverable	0.0045	0.0002	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Uranium, Total Recoverable	0.0059	0.0002	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Uranium, Total Recoverable	0.005	0.0002	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Uranium, Total Recoverable	0.0054	0.0002	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Uranium, Total Recoverable	0.006	0.0002	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Uranium, Total Recoverable	0.006	0.0002	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Uranium, Total Recoverable	0.0059	0.0002	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Uranium, Total Recoverable	0.0064	0.0002	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Uranium, Total Recoverable	0.0062	0.0002	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Uranium, Total Recoverable	0.0067	0.0002	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Uranium, Total Recoverable	0.0066	0.0002	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Uranium, Total Recoverable	0.0066	0.0002	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Uranium, Total Recoverable	0.0065	0.0002	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Uranium, Total Recoverable	0.0052	0.0002	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Uranium, Total Recoverable	0.0008	0.0002	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Uranium, Total Recoverable	0.0052	0.0002	mg/L	E200.8

SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Uranium, Total Recoverable	0.0051	0.0002	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Uranium, Total Recoverable	0.0054	0.0002	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Uranium, Total Recoverable	ND	0.0002	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Uranium, Total Recoverable	ND	0.0002	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8

SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8

SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Vanadium, Total	ND	0.1	mg/L	E200.8

					Recoverable				
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8

SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Vanadium, Total Recoverable	ND	0.1	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Zinc, Dissolved	ND	0.008	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Zinc, Dissolved	ND	0.008	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Zinc, Dissolved	ND	0.008	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Zinc, Dissolved	ND	0.008	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Zinc, Dissolved	0.021	0.008	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Zinc, Dissolved	0.048	0.008	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Zinc, Dissolved	0.064	0.008	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Zinc, Dissolved	0.063	0.008	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Zinc, Dissolved	0.11	0.008	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Zinc, Dissolved	0.077	0.008	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Zinc, Dissolved	0.038	0.008	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Zinc, Dissolved	0.04	0.008	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Zinc, Dissolved	0.027	0.008	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Zinc, Dissolved	0.026	0.008	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Zinc, Dissolved	0.023	0.008	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Zinc, Dissolved	ND	0.008	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Zinc, Dissolved	0.052	0.008	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Zinc, Dissolved	0.074	0.008	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Zinc, Dissolved	0.081	0.008	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Zinc, Dissolved	ND	0.008	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Zinc, Dissolved	ND	0.008	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Zinc, Dissolved	ND	0.008	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Zinc, Dissolved	0.011	0.008	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Zinc, Dissolved	ND	0.008	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Zinc, Dissolved	0.023	0.008	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Zinc, Dissolved	0.051	0.008	mg/L	E200.8

SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Zinc, Dissolved	0.044	0.008	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Zinc, Dissolved	0.045	0.008	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Zinc, Dissolved	0.091	0.008	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Zinc, Dissolved	0.094	0.008	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Zinc, Dissolved	0.091	0.008	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Zinc, Dissolved	0.024	0.008	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Zinc, Dissolved	0.019	0.008	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Zinc, Dissolved	0.024	0.008	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Zinc, Dissolved	0.016	0.008	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Zinc, Dissolved	ND	0.008	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Zinc, Dissolved	0.026	0.008	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Zinc, Dissolved	0.032	0.008	mg/L	E200.8
SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Zinc, Dissolved	0.031	0.008	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Zinc, Dissolved	0.039	0.008	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Zinc, Dissolved	0.009	0.008	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Zinc, Dissolved	ND	0.008	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Zinc, Dissolved	ND	0.008	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Zinc, Dissolved	0.009	0.008	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Zinc, Dissolved	ND	0.008	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Zinc, Dissolved	0.029	0.008	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Zinc, Dissolved	0.039	0.008	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Zinc, Dissolved	0.043	0.008	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Zinc, Dissolved	0.048	0.008	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Zinc, Dissolved	0.048	0.008	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Zinc, Dissolved	0.053	0.008	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Zinc, Dissolved	0.055	0.008	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Zinc, Dissolved	0.021	0.008	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Zinc, Dissolved	0.019	0.008	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Zinc, Dissolved	0.018	0.008	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Zinc, Dissolved	0.017	0.008	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Zinc, Dissolved	0.017	0.008	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Zinc, Dissolved	ND	0.008	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Zinc, Dissolved	0.024	0.008	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Zinc, Dissolved	0.036	0.008	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Zinc, Dissolved	0.037	0.008	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Zinc, Dissolved	0.009	0.008	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Zinc, Dissolved	0.01	0.008	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Zinc, Dissolved	ND	0.008	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Zinc, Dissolved	0.013	0.008	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Zinc, Dissolved	0.019	0.008	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Zinc, Dissolved	0.041	0.008	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Zinc, Dissolved	0.05	0.008	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Zinc, Dissolved	0.064	0.008	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Zinc, Dissolved	0.061	0.008	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Zinc, Dissolved	0.07	0.008	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Zinc, Dissolved	0.112	0.008	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Zinc, Dissolved	0.108	0.008	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Zinc, Dissolved	0.105	0.008	mg/L	E200.8

SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Zinc, Dissolved	0.108	0.008	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Zinc, Dissolved	0.108	0.008	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Zinc, Dissolved	0.137	0.008	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Zinc, Dissolved	0.113	0.008	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Zinc, Dissolved	ND	0.008	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Zinc, Dissolved	0.111	0.008	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Zinc, Dissolved	0.133	0.008	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Zinc, Dissolved	0.128	0.008	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Zinc, Dissolved	ND	0.008	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Zinc, Dissolved	0.015	0.008	mg/L	E200.8
SS-01	Duplicate	H15030393-002	27-Mar-15	18:00	Zinc, Total Recoverable	0.009	0.008	mg/L	E200.8
SS-01	Natural Sample	H15030393-001	27-Mar-15	18:00	Zinc, Total Recoverable	0.009	0.008	mg/L	E200.8
SS-05A	Natural Sample	H15030393-004	27-Mar-15	16:00	Zinc, Total Recoverable	0.017	0.008	mg/L	E200.8
SS-06G	Natural Sample	H15030394-001	27-Mar-15	15:30	Zinc, Total Recoverable	0.023	0.008	mg/L	E200.8
SS-07	Natural Sample	H15030394-002	27-Mar-15	14:30	Zinc, Total Recoverable	0.034	0.008	mg/L	E200.8
SS-08	Natural Sample	H15030394-003	27-Mar-15	13:15	Zinc, Total Recoverable	0.06	0.008	mg/L	E200.8
SS-10A	Natural Sample	H15030394-004	27-Mar-15	12:00	Zinc, Total Recoverable	0.097	0.008	mg/L	E200.8
SS-10B	Natural Sample	H15030394-005	27-Mar-15	11:15	Zinc, Total Recoverable	0.08	0.008	mg/L	E200.8
SS-11C	Natural Sample	H15030394-006	27-Mar-15	10:30	Zinc, Total Recoverable	0.131	0.008	mg/L	E200.8
SS-11D	Natural Sample	H15030394-007	27-Mar-15	9:30	Zinc, Total Recoverable	0.102	0.008	mg/L	E200.8
SS-13	Duplicate	H15030394-009	26-Mar-15	18:30	Zinc, Total Recoverable	0.072	0.008	mg/L	E200.8
SS-13	Natural Sample	H15030394-008	26-Mar-15	18:30	Zinc, Total Recoverable	0.07	0.008	mg/L	E200.8
SS-14	Natural Sample	H15030394-011	26-Mar-15	16:15	Zinc, Total Recoverable	0.062	0.008	mg/L	E200.8
SS-15A	Natural Sample	H15030394-012	26-Mar-15	14:45	Zinc, Total Recoverable	0.083	0.008	mg/L	E200.8
SS-15B	Natural Sample	H15030394-013	26-Mar-15	13:15	Zinc, Total Recoverable	0.064	0.008	mg/L	E200.8
SS-15G	Natural Sample	H15030393-005	26-Mar-15	14:00	Zinc, Total Recoverable	ND	0.008	mg/L	E200.8
SS-16B	Natural Sample	H15030394-014	26-Mar-15	11:45	Zinc, Total Recoverable	0.08	0.008	mg/L	E200.8
SS-17D	Natural Sample	H15030394-015	26-Mar-15	10:45	Zinc, Total Recoverable	0.105	0.008	mg/L	E200.8
SS-19	Natural Sample	H15030394-016	26-Mar-15	9:00	Zinc, Total Recoverable	0.109	0.008	mg/L	E200.8
	Field Blank	H15030394-010	26-Mar-15	18:00	Zinc, Total Recoverable	ND	0.008	mg/L	E200.8
	Field Blank	H15030393-003	27-Mar-15	17:00	Zinc, Total Recoverable	ND	0.008	mg/L	E200.8
SS-01	Natural Sample	H15050234-001	15-May-15	17:30	Zinc, Total Recoverable	ND	0.008	mg/L	E200.8
SS-05A	Natural Sample	H15050234-002	15-May-15	16:30	Zinc, Total Recoverable	0.021	0.008	mg/L	E200.8
SS-06G	Natural Sample	H15050235-001	15-May-15	16:00	Zinc, Total Recoverable	0.024	0.008	mg/L	E200.8
SS-07	Natural Sample	H15050235-003	15-May-15	14:45	Zinc, Total Recoverable	0.034	0.008	mg/L	E200.8
SS-08	Natural Sample	H15050235-004	15-May-15	13:45	Zinc, Total Recoverable	0.063	0.008	mg/L	E200.8
SS-10A	Natural Sample	H15050235-005	15-May-15	13:00	Zinc, Total Recoverable	0.06	0.008	mg/L	E200.8
SS-10B	Natural Sample	H15050235-006	15-May-15	12:00	Zinc, Total Recoverable	0.063	0.008	mg/L	E200.8
SS-11C	Natural Sample	H15050235-007	15-May-15	10:45	Zinc, Total Recoverable	0.122	0.008	mg/L	E200.8
SS-11D	Duplicate	H15050235-009	15-May-15	9:45	Zinc, Total Recoverable	0.116	0.008	mg/L	E200.8
SS-11D	Natural Sample	H15050235-008	15-May-15	9:45	Zinc, Total Recoverable	0.121	0.008	mg/L	E200.8
SS-13	Natural Sample	H15050235-010	14-May-15	16:45	Zinc, Total Recoverable	0.079	0.008	mg/L	E200.8
SS-14	Natural Sample	H15050235-012	14-May-15	15:30	Zinc, Total Recoverable	0.074	0.008	mg/L	E200.8
SS-15A	Natural Sample	H15050235-013	14-May-15	14:15	Zinc, Total Recoverable	0.076	0.008	mg/L	E200.8
SS-15B	Natural Sample	H15050235-014	14-May-15	12:45	Zinc, Total Recoverable	0.039	0.008	mg/L	E200.8
SS-15G	Natural Sample	H15050234-003	14-May-15	13:30	Zinc, Total Recoverable	ND	0.008	mg/L	E200.8
SS-16B	Natural Sample	H15050235-015	14-May-15	11:00	Zinc, Total Recoverable	0.046	0.008	mg/L	E200.8
SS-17D	Duplicate	H15050235-017	14-May-15	10:15	Zinc, Total Recoverable	0.066	0.008	mg/L	E200.8

SS-17D	Natural Sample	H15050235-016	14-May-15	10:15	Zinc, Total Recoverable	0.067	0.008	mg/L	E200.8
SS-19	Natural Sample	H15050235-018	14-May-15	9:00	Zinc, Total Recoverable	0.074	0.008	mg/L	E200.8
	Field Blank	H15050235-011	14-May-15	16:30	Zinc, Total Recoverable	ND	0.008	mg/L	E200.8
	Field Blank	H15050235-002	15-May-15	15:30	Zinc, Total Recoverable	ND	0.008	mg/L	E200.8
SS-01	Natural Sample	H15090199-001	9-Sep-15	18:15	Zinc, Total Recoverable	ND	0.008	mg/L	E200.8
SS-05A	Natural Sample	H15090199-002	9-Sep-15	17:00	Zinc, Total Recoverable	0.019	0.008	mg/L	E200.8
SS-06G	Natural Sample	H15090206-001	9-Sep-15	15:00	Zinc, Total Recoverable	0.02	0.008	mg/L	E200.8
SS-07	Natural Sample	H15090206-002	9-Sep-15	14:15	Zinc, Total Recoverable	0.036	0.008	mg/L	E200.8
SS-08	Natural Sample	H15090206-003	9-Sep-15	13:45	Zinc, Total Recoverable	0.042	0.008	mg/L	E200.8
SS-10A	Natural Sample	H15090206-004	9-Sep-15	12:30	Zinc, Total Recoverable	0.049	0.008	mg/L	E200.8
SS-10B	Duplicate	H15090206-006	9-Sep-15	11:30	Zinc, Total Recoverable	0.056	0.008	mg/L	E200.8
SS-10B	Natural Sample	H15090206-005	9-Sep-15	11:30	Zinc, Total Recoverable	0.054	0.008	mg/L	E200.8
SS-11C	Natural Sample	H15090206-007	9-Sep-15	10:00	Zinc, Total Recoverable	0.079	0.008	mg/L	E200.8
SS-11D	Natural Sample	H15090206-008	9-Sep-15	9:00	Zinc, Total Recoverable	0.083	0.008	mg/L	E200.8
SS-13	Natural Sample	H15090206-010	8-Sep-15	18:30	Zinc, Total Recoverable	0.064	0.008	mg/L	E200.8
SS-14	Natural Sample	H15090206-011	8-Sep-15	17:00	Zinc, Total Recoverable	0.067	0.008	mg/L	E200.8
SS-15A	Natural Sample	H15090206-012	8-Sep-15	15:00	Zinc, Total Recoverable	0.039	0.008	mg/L	E200.8
SS-15B	Duplicate	H15090206-014	8-Sep-15	13:30	Zinc, Total Recoverable	0.03	0.008	mg/L	E200.8
SS-15B	Natural Sample	H15090206-013	8-Sep-15	13:30	Zinc, Total Recoverable	0.029	0.008	mg/L	E200.8
SS-15G	Natural Sample	H15090199-003	8-Sep-15	14:15	Zinc, Total Recoverable	ND	0.008	mg/L	E200.8
SS-16B	Natural Sample	H15090206-015	8-Sep-15	11:15	Zinc, Total Recoverable	0.033	0.008	mg/L	E200.8
SS-17D	Natural Sample	H15090206-016	8-Sep-15	10:00	Zinc, Total Recoverable	0.052	0.008	mg/L	E200.8
SS-19	Natural Sample	H15090206-018	8-Sep-15	8:30	Zinc, Total Recoverable	0.056	0.008	mg/L	E200.8
	Field Blank	H15090206-017	8-Sep-15	9:30	Zinc, Total Recoverable	ND	0.008	mg/L	E200.8
	Field Blank	H15090206-009	9-Sep-15	8:45	Zinc, Total Recoverable	ND	0.008	mg/L	E200.8
SS-01	Natural Sample	H15120092-001	4-Dec-15	17:45	Zinc, Total Recoverable	0.011	0.008	mg/L	E200.8
SS-05A	Natural Sample	H15120092-002	4-Dec-15	16:30	Zinc, Total Recoverable	0.044	0.008	mg/L	E200.8
SS-06G	Natural Sample	H15120093-001	4-Dec-15	15:30	Zinc, Total Recoverable	0.055	0.008	mg/L	E200.8
SS-07	Natural Sample	H15120093-003	4-Dec-15	14:30	Zinc, Total Recoverable	0.064	0.008	mg/L	E200.8
SS-08	Natural Sample	H15120093-004	4-Dec-15	13:30	Zinc, Total Recoverable	0.104	0.008	mg/L	E200.8
SS-10A	Duplicate	H15120093-006	4-Dec-15	12:00	Zinc, Total Recoverable	0.143	0.008	mg/L	E200.8
SS-10A	Natural Sample	H15120093-005	4-Dec-15	12:00	Zinc, Total Recoverable	0.141	0.008	mg/L	E200.8
SS-10B	Natural Sample	H15120093-007	4-Dec-15	11:00	Zinc, Total Recoverable	0.141	0.008	mg/L	E200.8
SS-11C	Natural Sample	H15120093-008	4-Dec-15	9:45	Zinc, Total Recoverable	0.141	0.008	mg/L	E200.8
SS-11D	Natural Sample	H15120093-009	4-Dec-15	9:15	Zinc, Total Recoverable	0.136	0.008	mg/L	E200.8
SS-13	Natural Sample	H15120093-010	3-Dec-15	16:00	Zinc, Total Recoverable	0.154	0.008	mg/L	E200.8
SS-14	Duplicate	H15120093-012	3-Dec-15	15:00	Zinc, Total Recoverable	0.159	0.008	mg/L	E200.8
SS-14	Natural Sample	H15120093-011	3-Dec-15	15:00	Zinc, Total Recoverable	0.158	0.008	mg/L	E200.8
SS-15A	Natural Sample	H15120093-013	3-Dec-15	13:45	Zinc, Total Recoverable	0.143	0.008	mg/L	E200.8
SS-15B	Natural Sample	H15120093-014	3-Dec-15	12:45	Zinc, Total Recoverable	0.117	0.008	mg/L	E200.8
SS-15G	Natural Sample	H15120092-003	3-Dec-15	13:15	Zinc, Total Recoverable	ND	0.008	mg/L	E200.8
SS-16B	Natural Sample	H15120093-015	3-Dec-15	11:30	Zinc, Total Recoverable	0.128	0.008	mg/L	E200.8
SS-17D	Natural Sample	H15120093-016	3-Dec-15	10:30	Zinc, Total Recoverable	0.138	0.008	mg/L	E200.8
SS-19	Natural Sample	H15120093-017	3-Dec-15	10:00	Zinc, Total Recoverable	0.139	0.008	mg/L	E200.8
	Field Blank	H15120093-018	3-Dec-15	9:30	Zinc, Total Recoverable	ND	0.008	mg/L	E200.8
	Field Blank	H15120093-002	4-Dec-15	15:00	Zinc, Total Recoverable	ND	0.008	mg/L	E200.8

ND Not detected at analytical reporting limit.

APPENDIX D

SEDIMENT DATA

Table D1. Instream sediment analyte concentrations in the Streamside Tailings Operable Unit, 2015.

Site	Date	Lab ID	Type	Parameter	Sieve Size	Results	Reporting Limit	Unit	Method
SS-10A	27-Mar-15	H15030394-029	Duplicate	Aluminum, Total	<0.065 mm	27100	8	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-032	Duplicate	Aluminum, Total	<0.065 mm	29700	10	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-052	Duplicate	Aluminum, Total	<0.065 mm	23900	9	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-022	Duplicate	Aluminum, Total	<0.065 mm	18600	9	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-049	Duplicate	Aluminum, Total	<0.065 mm	17800	9	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-031	Duplicate	Aluminum, Total	<0.065 mm	38300	10	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-034	Duplicate	Aluminum, Total	<0.065 mm	26000	10	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-006	Natural Sample	Aluminum, Total	<0.065 mm	20900	6	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Aluminum, Total	<0.065 mm	19500	7	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Aluminum, Total	<0.065 mm	17600	9	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-020	Natural Sample	Aluminum, Total	<0.065 mm	18900	8	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-023	Natural Sample	Aluminum, Total	<0.065 mm	18100	10	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Aluminum, Total	<0.065 mm	33500	8	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Aluminum, Total	<0.065 mm	28100	9	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Aluminum, Total	<0.065 mm	22000	10	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Aluminum, Total	<0.065 mm	25300	9	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-044	Natural Sample	Aluminum, Total	<0.065 mm	20500	10	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-047	Natural Sample	Aluminum, Total	<0.065 mm	23700	10	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Aluminum, Total	<0.065 mm	22100	8	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Aluminum, Total	<0.065 mm	26300	9	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Aluminum, Total	<0.065 mm	27500	10	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Aluminum, Total	<0.065 mm	30100	7	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Aluminum, Total	<0.065 mm	27500	7	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-062	Natural Sample	Aluminum, Total	<0.065 mm	26400	6	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-004	Natural Sample	Aluminum, Total	<0.065 mm	21300	7	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-007	Natural Sample	Aluminum, Total	<0.065 mm	23200	7	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-019	Natural Sample	Aluminum, Total	<0.065 mm	19800	9	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-025	Natural Sample	Aluminum, Total	<0.065 mm	20400	8	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-028	Natural Sample	Aluminum, Total	<0.065 mm	20600	10	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-031	Natural Sample	Aluminum, Total	<0.065 mm	28700	10	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-034	Natural Sample	Aluminum, Total	<0.065 mm	31800	10	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-037	Natural Sample	Aluminum, Total	<0.065 mm	23200	10	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-040	Natural Sample	Aluminum, Total	<0.065 mm	32500	10	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-043	Natural Sample	Aluminum, Total	<0.065 mm	21100	10	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-046	Natural Sample	Aluminum, Total	<0.065 mm	22300	10	mg/kg - dry	SW6010B

SS-15A	14-May-15	H15050235-049	Natural Sample	Aluminum, Total	<0.065 mm	20600	9	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-010	Natural Sample	Aluminum, Total	<0.065 mm	26900	8	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-055	Natural Sample	Aluminum, Total	<0.065 mm	25100	10	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-058	Natural Sample	Aluminum, Total	<0.065 mm	31700	8	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-061	Natural Sample	Aluminum, Total	<0.065 mm	22300	8	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-064	Natural Sample	Aluminum, Total	<0.065 mm	31100	7	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-004	Natural Sample	Aluminum, Total	<0.065 mm	24700	7	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Aluminum, Total	<0.065 mm	20700	7	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Aluminum, Total	<0.065 mm	18100	10	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-022	Natural Sample	Aluminum, Total	<0.065 mm	17100	10	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-025	Natural Sample	Aluminum, Total	<0.065 mm	18500	10	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Aluminum, Total	<0.065 mm	36500	10	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Aluminum, Total	<0.065 mm	29100	10	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Aluminum, Total	<0.065 mm	25300	10	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Aluminum, Total	<0.065 mm	29200	10	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-043	Natural Sample	Aluminum, Total	<0.065 mm	21200	10	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-046	Natural Sample	Aluminum, Total	<0.065 mm	27500	10	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Aluminum, Total	<0.065 mm	25400	20	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Aluminum, Total	<0.065 mm	31000	10	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Aluminum, Total	<0.065 mm	18200	10	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Aluminum, Total	<0.065 mm	29000	7	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Aluminum, Total	<0.065 mm	24900	7	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-064	Natural Sample	Aluminum, Total	<0.065 mm	21700	9	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-004	Natural Sample	Aluminum, Total	<0.065 mm	22200	7	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Aluminum, Total	<0.065 mm	19200	7	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Aluminum, Total	<0.065 mm	19900	8	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-022	Natural Sample	Aluminum, Total	<0.065 mm	15400	10	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-025	Natural Sample	Aluminum, Total	<0.065 mm	20600	10	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Aluminum, Total	<0.065 mm	44800	10	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Aluminum, Total	<0.065 mm	20900	10	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Aluminum, Total	<0.065 mm	23000	10	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Aluminum, Total	<0.065 mm	23100	9	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Aluminum, Total	<0.065 mm	24400	8	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-030	Duplicate	Aluminum, Total	0.065-1 mm	17000	6	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-033	Duplicate	Aluminum, Total	0.065-1 mm	18500	6	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-053	Duplicate	Aluminum, Total	0.065-1 mm	6990	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-023	Duplicate	Aluminum, Total	0.065-1 mm	6120	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-050	Duplicate	Aluminum, Total	0.065-1 mm	5950	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-035	Duplicate	Aluminum, Total	0.065-1 mm	11600	9	mg/kg - dry	SW6010B

SS-01	27-Mar-15	H15030393-007	Natural Sample	Aluminum, Total	0.065-1 mm	4460	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Aluminum, Total	0.065-1 mm	4760	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Aluminum, Total	0.065-1 mm	5300	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-021	Natural Sample	Aluminum, Total	0.065-1 mm	5860	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-024	Natural Sample	Aluminum, Total	0.065-1 mm	6640	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Aluminum, Total	0.065-1 mm	16600	6	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Aluminum, Total	0.065-1 mm	11300	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Aluminum, Total	0.065-1 mm	5730	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Aluminum, Total	0.065-1 mm	4770	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-045	Natural Sample	Aluminum, Total	0.065-1 mm	5510	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-048	Natural Sample	Aluminum, Total	0.065-1 mm	5260	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Aluminum, Total	0.065-1 mm	5350	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Aluminum, Total	0.065-1 mm	10600	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Aluminum, Total	0.065-1 mm	6690	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Aluminum, Total	0.065-1 mm	6610	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Aluminum, Total	0.065-1 mm	4850	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-063	Natural Sample	Aluminum, Total	0.065-1 mm	4960	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-005	Natural Sample	Aluminum, Total	0.065-1 mm	4770	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-008	Natural Sample	Aluminum, Total	0.065-1 mm	4530	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-020	Natural Sample	Aluminum, Total	0.065-1 mm	5510	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-026	Natural Sample	Aluminum, Total	0.065-1 mm	6190	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-029	Natural Sample	Aluminum, Total	0.065-1 mm	4960	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-032	Natural Sample	Aluminum, Total	0.065-1 mm	18000	6	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-035	Natural Sample	Aluminum, Total	0.065-1 mm	6580	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-038	Natural Sample	Aluminum, Total	0.065-1 mm	5210	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-041	Natural Sample	Aluminum, Total	0.065-1 mm	5010	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-044	Natural Sample	Aluminum, Total	0.065-1 mm	9290	6	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-047	Natural Sample	Aluminum, Total	0.065-1 mm	6690	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-050	Natural Sample	Aluminum, Total	0.065-1 mm	8570	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-011	Natural Sample	Aluminum, Total	0.065-1 mm	14100	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-056	Natural Sample	Aluminum, Total	0.065-1 mm	9870	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-059	Natural Sample	Aluminum, Total	0.065-1 mm	5950	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-062	Natural Sample	Aluminum, Total	0.065-1 mm	5900	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-065	Natural Sample	Aluminum, Total	0.065-1 mm	4750	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-005	Natural Sample	Aluminum, Total	0.065-1 mm	4200	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Aluminum, Total	0.065-1 mm	4280	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Aluminum, Total	0.065-1 mm	3560	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-023	Natural Sample	Aluminum, Total	0.065-1 mm	4700	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-026	Natural Sample	Aluminum, Total	0.065-1 mm	5840	5	mg/kg - dry	SW6010B

SS-10A	09-Sep-15	H15090206-029	Natural Sample	Aluminum, Total	0.065-1 mm	9840	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Aluminum, Total	0.065-1 mm	7370	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Aluminum, Total	0.065-1 mm	4630	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Aluminum, Total	0.065-1 mm	4970	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-044	Natural Sample	Aluminum, Total	0.065-1 mm	8320	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-047	Natural Sample	Aluminum, Total	0.065-1 mm	5790	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Aluminum, Total	0.065-1 mm	4250	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Aluminum, Total	0.065-1 mm	8590	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Aluminum, Total	0.065-1 mm	6670	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Aluminum, Total	0.065-1 mm	6130	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Aluminum, Total	0.065-1 mm	4940	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-065	Natural Sample	Aluminum, Total	0.065-1 mm	2680	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-032	Duplicate	Aluminum, Total	0.065-1 mm	8620	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-005	Natural Sample	Aluminum, Total	0.065-1 mm	4570	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Aluminum, Total	0.065-1 mm	4930	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Aluminum, Total	0.065-1 mm	4530	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-023	Natural Sample	Aluminum, Total	0.065-1 mm	4310	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-026	Natural Sample	Aluminum, Total	0.065-1 mm	4920	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Aluminum, Total	0.065-1 mm	8000	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Aluminum, Total	0.065-1 mm	9340	6	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Aluminum, Total	0.065-1 mm	6550	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Aluminum, Total	0.065-1 mm	7550	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Aluminum, Total	0.065-1 mm	6190	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-031	Duplicate	Aluminum, Total	1-2 mm	17800	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-034	Duplicate	Aluminum, Total	1-2 mm	27800	6	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-054	Duplicate	Aluminum, Total	1-2 mm	4100	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-024	Duplicate	Aluminum, Total	1-2 mm	3770	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-051	Duplicate	Aluminum, Total	1-2 mm	6340	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-036	Duplicate	Aluminum, Total	1-2 mm	5760	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-008	Natural Sample	Aluminum, Total	1-2 mm	3460	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Aluminum, Total	1-2 mm	4230	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Aluminum, Total	1-2 mm	3570	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-022	Natural Sample	Aluminum, Total	1-2 mm	2050	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-025	Natural Sample	Aluminum, Total	1-2 mm	6430	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Aluminum, Total	1-2 mm	33500	6	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Aluminum, Total	1-2 mm	5820	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Aluminum, Total	1-2 mm	5330	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Aluminum, Total	1-2 mm	4000	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-046	Natural Sample	Aluminum, Total	1-2 mm	5350	5	mg/kg - dry	SW6010B

SS-14	26-Mar-15	H15030394-049	Natural Sample	Aluminum, Total	1-2 mm	4280	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Aluminum, Total	1-2 mm	3120	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Aluminum, Total	1-2 mm	8460	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Aluminum, Total	1-2 mm	7470	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Aluminum, Total	1-2 mm	3540	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Aluminum, Total	1-2 mm	4330	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-064	Natural Sample	Aluminum, Total	1-2 mm	3790	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-006	Natural Sample	Aluminum, Total	1-2 mm	3800	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-009	Natural Sample	Aluminum, Total	1-2 mm	4290	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-021	Natural Sample	Aluminum, Total	1-2 mm	3510	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-027	Natural Sample	Aluminum, Total	1-2 mm	3910	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-030	Natural Sample	Aluminum, Total	1-2 mm	5280	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-033	Natural Sample	Aluminum, Total	1-2 mm	32300	6	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-036	Natural Sample	Aluminum, Total	1-2 mm	6500	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-039	Natural Sample	Aluminum, Total	1-2 mm	3450	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-042	Natural Sample	Aluminum, Total	1-2 mm	4580	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-045	Natural Sample	Aluminum, Total	1-2 mm	5140	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-048	Natural Sample	Aluminum, Total	1-2 mm	5250	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-051	Natural Sample	Aluminum, Total	1-2 mm	4130	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-012	Natural Sample	Aluminum, Total	1-2 mm	12600	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Aluminum, Total	1-2 mm	8150	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-060	Natural Sample	Aluminum, Total	1-2 mm	4030	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-063	Natural Sample	Aluminum, Total	1-2 mm	5880	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-066	Natural Sample	Aluminum, Total	1-2 mm	4000	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-006	Natural Sample	Aluminum, Total	1-2 mm	4290	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Aluminum, Total	1-2 mm	4100	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Aluminum, Total	1-2 mm	3470	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-024	Natural Sample	Aluminum, Total	1-2 mm	3550	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-027	Natural Sample	Aluminum, Total	1-2 mm	4520	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Aluminum, Total	1-2 mm	12600	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Aluminum, Total	1-2 mm	9310	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Aluminum, Total	1-2 mm	4180	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Aluminum, Total	1-2 mm	5500	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-045	Natural Sample	Aluminum, Total	1-2 mm	4790	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-048	Natural Sample	Aluminum, Total	1-2 mm	4770	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Aluminum, Total	1-2 mm	4130	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Aluminum, Total	1-2 mm	9580	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Aluminum, Total	1-2 mm	7340	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Aluminum, Total	1-2 mm	5010	5	mg/kg - dry	SW6010B

SS-17D	08-Sep-15	H15090206-063	Natural Sample	Aluminum, Total	1-2 mm	3940	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-066	Natural Sample	Aluminum, Total	1-2 mm	2920	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-033	Duplicate	Aluminum, Total	1-2 mm	13300	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-006	Natural Sample	Aluminum, Total	1-2 mm	2720	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Aluminum, Total	1-2 mm	4400	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Aluminum, Total	1-2 mm	3310	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-024	Natural Sample	Aluminum, Total	1-2 mm	4140	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-027	Natural Sample	Aluminum, Total	1-2 mm	3350	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Aluminum, Total	1-2 mm	5660	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Aluminum, Total	1-2 mm	6150	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Aluminum, Total	1-2 mm	4060	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Aluminum, Total	1-2 mm	6120	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Aluminum, Total	1-2 mm	3960	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-029	Duplicate	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-032	Duplicate	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-052	Duplicate	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-022	Duplicate	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-049	Duplicate	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-034	Duplicate	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-006	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-020	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-023	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-044	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-047	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-062	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-004	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-007	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-019	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020

SS-07	15-May-15	H15050235-025	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-028	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-031	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-034	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-037	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-040	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-043	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-046	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-049	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-010	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-056	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-058	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-061	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-064	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-004	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-022	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-025	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-043	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-046	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-064	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-031	Duplicate	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-004	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-022	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-025	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020

SS-11C	04-Dec-15	H15120093-037	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Antimony, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-030	Duplicate	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-033	Duplicate	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-053	Duplicate	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-023	Duplicate	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-050	Duplicate	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-035	Duplicate	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-007	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Antimony, Total	0.065-1 mm	<5	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-021	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-024	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-045	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-048	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-063	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-005	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-008	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-020	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-026	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-029	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-032	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-035	Natural Sample	Antimony, Total	0.065-1 mm	<5	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-038	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-041	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-044	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-047	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-050	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-011	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020

SS-15B	14-May-15	H15050235-056	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-059	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-062	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-065	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-005	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-023	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-026	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-044	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-047	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Antimony, Total	0.065-1 mm	<5	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-065	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-032	Duplicate	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-005	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-023	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-026	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Antimony, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-031	Duplicate	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-034	Duplicate	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-054	Duplicate	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-024	Duplicate	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-051	Duplicate	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-036	Duplicate	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-008	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020

SS-05A	27-Mar-15	H15030393-011	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-022	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-025	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-046	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-049	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-064	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-006	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-009	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-021	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-027	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-030	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-033	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-036	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-039	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-042	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-045	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-048	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-051	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-012	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-060	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-063	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-066	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-006	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-024	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-027	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020

SS-10B	09-Sep-15	H15090206-036	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-045	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-048	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-066	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-033	Duplicate	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-006	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-024	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-027	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Antimony, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-029	Duplicate	Arsenic, Total	<0.065 mm	33	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-032	Duplicate	Arsenic, Total	<0.065 mm	49	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-052	Duplicate	Arsenic, Total	<0.065 mm	67	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-022	Duplicate	Arsenic, Total	<0.065 mm	81	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-049	Duplicate	Arsenic, Total	<0.065 mm	24	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-034	Duplicate	Arsenic, Total	<0.065 mm	38	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-006	Natural Sample	Arsenic, Total	<0.065 mm	63	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Arsenic, Total	<0.065 mm	304	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Arsenic, Total	<0.065 mm	84	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-020	Natural Sample	Arsenic, Total	<0.065 mm	95	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-023	Natural Sample	Arsenic, Total	<0.065 mm	64	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Arsenic, Total	<0.065 mm	39	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Arsenic, Total	<0.065 mm	44	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Arsenic, Total	<0.065 mm	38	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Arsenic, Total	<0.065 mm	28	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-044	Natural Sample	Arsenic, Total	<0.065 mm	38	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-047	Natural Sample	Arsenic, Total	<0.065 mm	33	5	mg/kg - dry	SW6020

SS-15A	26-Mar-15	H15030394-050	Natural Sample	Arsenic, Total	<0.065 mm	343	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Arsenic, Total	<0.065 mm	55	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Arsenic, Total	<0.065 mm	123	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Arsenic, Total	<0.065 mm	68	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Arsenic, Total	<0.065 mm	74	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-062	Natural Sample	Arsenic, Total	<0.065 mm	463	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-004	Natural Sample	Arsenic, Total	<0.065 mm	33	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-007	Natural Sample	Arsenic, Total	<0.065 mm	298	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-019	Natural Sample	Arsenic, Total	<0.065 mm	80	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-025	Natural Sample	Arsenic, Total	<0.065 mm	77	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-028	Natural Sample	Arsenic, Total	<0.065 mm	71	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-031	Natural Sample	Arsenic, Total	<0.065 mm	33	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-034	Natural Sample	Arsenic, Total	<0.065 mm	45	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-037	Natural Sample	Arsenic, Total	<0.065 mm	31	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-040	Natural Sample	Arsenic, Total	<0.065 mm	35	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-043	Natural Sample	Arsenic, Total	<0.065 mm	43	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-046	Natural Sample	Arsenic, Total	<0.065 mm	33	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-049	Natural Sample	Arsenic, Total	<0.065 mm	69	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-010	Natural Sample	Arsenic, Total	<0.065 mm	47	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Arsenic, Total	<0.065 mm	70	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-058	Natural Sample	Arsenic, Total	<0.065 mm	88	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-061	Natural Sample	Arsenic, Total	<0.065 mm	60	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-064	Natural Sample	Arsenic, Total	<0.065 mm	39	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-004	Natural Sample	Arsenic, Total	<0.065 mm	35	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Arsenic, Total	<0.065 mm	358	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Arsenic, Total	<0.065 mm	90	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-022	Natural Sample	Arsenic, Total	<0.065 mm	88	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-025	Natural Sample	Arsenic, Total	<0.065 mm	56	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Arsenic, Total	<0.065 mm	36	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Arsenic, Total	<0.065 mm	32	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Arsenic, Total	<0.065 mm	30	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Arsenic, Total	<0.065 mm	27	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-043	Natural Sample	Arsenic, Total	<0.065 mm	26	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-046	Natural Sample	Arsenic, Total	<0.065 mm	31	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Arsenic, Total	<0.065 mm	161	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Arsenic, Total	<0.065 mm	59	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Arsenic, Total	<0.065 mm	465	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Arsenic, Total	<0.065 mm	66	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Arsenic, Total	<0.065 mm	76	5	mg/kg - dry	SW6020

SS-19	08-Sep-15	H15090206-064	Natural Sample	Arsenic, Total	<0.065 mm	79	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-031	Duplicate	Arsenic, Total	<0.065 mm	25	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-004	Natural Sample	Arsenic, Total	<0.065 mm	37	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Arsenic, Total	<0.065 mm	223	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Arsenic, Total	<0.065 mm	103	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-022	Natural Sample	Arsenic, Total	<0.065 mm	120	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-025	Natural Sample	Arsenic, Total	<0.065 mm	64	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Arsenic, Total	<0.065 mm	28	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Arsenic, Total	<0.065 mm	39	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Arsenic, Total	<0.065 mm	33	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Arsenic, Total	<0.065 mm	29	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Arsenic, Total	<0.065 mm	44	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-030	Duplicate	Arsenic, Total	0.065-1 mm	16	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-033	Duplicate	Arsenic, Total	0.065-1 mm	17	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-053	Duplicate	Arsenic, Total	0.065-1 mm	47	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-023	Duplicate	Arsenic, Total	0.065-1 mm	24	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-050	Duplicate	Arsenic, Total	0.065-1 mm	6	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-035	Duplicate	Arsenic, Total	0.065-1 mm	29	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-007	Natural Sample	Arsenic, Total	0.065-1 mm	9	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Arsenic, Total	0.065-1 mm	125	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Arsenic, Total	0.065-1 mm	34	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-021	Natural Sample	Arsenic, Total	0.065-1 mm	33	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-024	Natural Sample	Arsenic, Total	0.065-1 mm	101	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Arsenic, Total	0.065-1 mm	17	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Arsenic, Total	0.065-1 mm	11	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Arsenic, Total	0.065-1 mm	8	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Arsenic, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-045	Natural Sample	Arsenic, Total	0.065-1 mm	7	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-048	Natural Sample	Arsenic, Total	0.065-1 mm	8	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Arsenic, Total	0.065-1 mm	155	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Arsenic, Total	0.065-1 mm	30	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Arsenic, Total	0.065-1 mm	33	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Arsenic, Total	0.065-1 mm	37	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Arsenic, Total	0.065-1 mm	23	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-063	Natural Sample	Arsenic, Total	0.065-1 mm	40	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-005	Natural Sample	Arsenic, Total	0.065-1 mm	7	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-008	Natural Sample	Arsenic, Total	0.065-1 mm	116	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-020	Natural Sample	Arsenic, Total	0.065-1 mm	23	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-026	Natural Sample	Arsenic, Total	0.065-1 mm	29	5	mg/kg - dry	SW6020

SS-08	15-May-15	H15050235-029	Natural Sample	Arsenic, Total	0.065-1 mm	13	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-032	Natural Sample	Arsenic, Total	0.065-1 mm	15	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-035	Natural Sample	Arsenic, Total	0.065-1 mm	9	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-038	Natural Sample	Arsenic, Total	0.065-1 mm	6	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-041	Natural Sample	Arsenic, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-044	Natural Sample	Arsenic, Total	0.065-1 mm	11	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-047	Natural Sample	Arsenic, Total	0.065-1 mm	10	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-050	Natural Sample	Arsenic, Total	0.065-1 mm	90	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-011	Natural Sample	Arsenic, Total	0.065-1 mm	25	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-056	Natural Sample	Arsenic, Total	0.065-1 mm	46	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-059	Natural Sample	Arsenic, Total	0.065-1 mm	31	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-062	Natural Sample	Arsenic, Total	0.065-1 mm	17	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-065	Natural Sample	Arsenic, Total	0.065-1 mm	18	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-005	Natural Sample	Arsenic, Total	0.065-1 mm	6	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Arsenic, Total	0.065-1 mm	187	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Arsenic, Total	0.065-1 mm	18	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-023	Natural Sample	Arsenic, Total	0.065-1 mm	12	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-026	Natural Sample	Arsenic, Total	0.065-1 mm	12	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Arsenic, Total	0.065-1 mm	8	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Arsenic, Total	0.065-1 mm	36	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Arsenic, Total	0.065-1 mm	5	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Arsenic, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-044	Natural Sample	Arsenic, Total	0.065-1 mm	6	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-047	Natural Sample	Arsenic, Total	0.065-1 mm	7	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Arsenic, Total	0.065-1 mm	75	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Arsenic, Total	0.065-1 mm	23	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Arsenic, Total	0.065-1 mm	74	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Arsenic, Total	0.065-1 mm	26	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Arsenic, Total	0.065-1 mm	18	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-065	Natural Sample	Arsenic, Total	0.065-1 mm	15	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-032	Duplicate	Arsenic, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-005	Natural Sample	Arsenic, Total	0.065-1 mm	6	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Arsenic, Total	0.065-1 mm	98	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Arsenic, Total	0.065-1 mm	27	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-023	Natural Sample	Arsenic, Total	0.065-1 mm	18	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-026	Natural Sample	Arsenic, Total	0.065-1 mm	16	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Arsenic, Total	0.065-1 mm	7	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Arsenic, Total	0.065-1 mm	8	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Arsenic, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020

SS-11D	04-Dec-15	H15120093-041	Natural Sample	Arsenic, Total	0.065-1 mm	5	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Arsenic, Total	0.065-1 mm	19	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-031	Duplicate	Arsenic, Total	1-2 mm	9	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-034	Duplicate	Arsenic, Total	1-2 mm	17	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-054	Duplicate	Arsenic, Total	1-2 mm	55	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-024	Duplicate	Arsenic, Total	1-2 mm	20	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-051	Duplicate	Arsenic, Total	1-2 mm	198	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-036	Duplicate	Arsenic, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-008	Natural Sample	Arsenic, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Arsenic, Total	1-2 mm	58	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Arsenic, Total	1-2 mm	18	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-022	Natural Sample	Arsenic, Total	1-2 mm	9	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-025	Natural Sample	Arsenic, Total	1-2 mm	19	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Arsenic, Total	1-2 mm	16	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Arsenic, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Arsenic, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Arsenic, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-046	Natural Sample	Arsenic, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-049	Natural Sample	Arsenic, Total	1-2 mm	9	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Arsenic, Total	1-2 mm	65	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Arsenic, Total	1-2 mm	27	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Arsenic, Total	1-2 mm	34	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Arsenic, Total	1-2 mm	21	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Arsenic, Total	1-2 mm	26	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-064	Natural Sample	Arsenic, Total	1-2 mm	25	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-006	Natural Sample	Arsenic, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-009	Natural Sample	Arsenic, Total	1-2 mm	135	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-021	Natural Sample	Arsenic, Total	1-2 mm	17	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-027	Natural Sample	Arsenic, Total	1-2 mm	15	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-030	Natural Sample	Arsenic, Total	1-2 mm	78	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-033	Natural Sample	Arsenic, Total	1-2 mm	16	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-036	Natural Sample	Arsenic, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-039	Natural Sample	Arsenic, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-042	Natural Sample	Arsenic, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-045	Natural Sample	Arsenic, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-048	Natural Sample	Arsenic, Total	1-2 mm	7	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-051	Natural Sample	Arsenic, Total	1-2 mm	72	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-012	Natural Sample	Arsenic, Total	1-2 mm	124	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Arsenic, Total	1-2 mm	39	5	mg/kg - dry	SW6020

SS-16B	14-May-15	H15050235-060	Natural Sample	Arsenic, Total	1-2 mm	25	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-063	Natural Sample	Arsenic, Total	1-2 mm	29	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-066	Natural Sample	Arsenic, Total	1-2 mm	13	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-006	Natural Sample	Arsenic, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Arsenic, Total	1-2 mm	121	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Arsenic, Total	1-2 mm	27	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-024	Natural Sample	Arsenic, Total	1-2 mm	20	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-027	Natural Sample	Arsenic, Total	1-2 mm	7	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Arsenic, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Arsenic, Total	1-2 mm	5	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Arsenic, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Arsenic, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-045	Natural Sample	Arsenic, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-048	Natural Sample	Arsenic, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Arsenic, Total	1-2 mm	39	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Arsenic, Total	1-2 mm	20	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Arsenic, Total	1-2 mm	57	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Arsenic, Total	1-2 mm	30	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Arsenic, Total	1-2 mm	16	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-066	Natural Sample	Arsenic, Total	1-2 mm	8	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-033	Duplicate	Arsenic, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-006	Natural Sample	Arsenic, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Arsenic, Total	1-2 mm	63	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Arsenic, Total	1-2 mm	91	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-024	Natural Sample	Arsenic, Total	1-2 mm	15	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-027	Natural Sample	Arsenic, Total	1-2 mm	12	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Arsenic, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Arsenic, Total	1-2 mm	30	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Arsenic, Total	1-2 mm	7	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Arsenic, Total	1-2 mm	5	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Arsenic, Total	1-2 mm	35	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-029	Duplicate	Barium, Total	<0.065 mm	282	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-032	Duplicate	Barium, Total	<0.065 mm	356	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-052	Duplicate	Barium, Total	<0.065 mm	487	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-022	Duplicate	Barium, Total	<0.065 mm	351	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-049	Duplicate	Barium, Total	<0.065 mm	331	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-034	Duplicate	Barium, Total	<0.065 mm	418	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-006	Natural Sample	Barium, Total	<0.065 mm	280	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Barium, Total	<0.065 mm	359	5	mg/kg - dry	SW6010B

SS-06G	27-Mar-15	H15030394-017	Natural Sample	Barium, Total	<0.065 mm	331	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-020	Natural Sample	Barium, Total	<0.065 mm	233	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-023	Natural Sample	Barium, Total	<0.065 mm	318	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Barium, Total	<0.065 mm	384	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Barium, Total	<0.065 mm	352	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Barium, Total	<0.065 mm	342	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Barium, Total	<0.065 mm	390	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-044	Natural Sample	Barium, Total	<0.065 mm	377	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-047	Natural Sample	Barium, Total	<0.065 mm	345	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Barium, Total	<0.065 mm	568	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Barium, Total	<0.065 mm	282	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Barium, Total	<0.065 mm	374	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Barium, Total	<0.065 mm	374	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Barium, Total	<0.065 mm	375	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-062	Natural Sample	Barium, Total	<0.065 mm	278	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-004	Natural Sample	Barium, Total	<0.065 mm	258	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-007	Natural Sample	Barium, Total	<0.065 mm	334	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-019	Natural Sample	Barium, Total	<0.065 mm	351	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-025	Natural Sample	Barium, Total	<0.065 mm	273	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-028	Natural Sample	Barium, Total	<0.065 mm	408	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-031	Natural Sample	Barium, Total	<0.065 mm	205	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-034	Natural Sample	Barium, Total	<0.065 mm	422	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-037	Natural Sample	Barium, Total	<0.065 mm	366	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-040	Natural Sample	Barium, Total	<0.065 mm	611	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-043	Natural Sample	Barium, Total	<0.065 mm	332	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-046	Natural Sample	Barium, Total	<0.065 mm	356	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-049	Natural Sample	Barium, Total	<0.065 mm	438	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-010	Natural Sample	Barium, Total	<0.065 mm	272	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Barium, Total	<0.065 mm	418	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-058	Natural Sample	Barium, Total	<0.065 mm	361	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-061	Natural Sample	Barium, Total	<0.065 mm	288	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-064	Natural Sample	Barium, Total	<0.065 mm	383	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-004	Natural Sample	Barium, Total	<0.065 mm	299	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Barium, Total	<0.065 mm	306	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Barium, Total	<0.065 mm	518	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-022	Natural Sample	Barium, Total	<0.065 mm	385	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-025	Natural Sample	Barium, Total	<0.065 mm	326	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Barium, Total	<0.065 mm	298	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Barium, Total	<0.065 mm	415	5	mg/kg - dry	SW6010B

SS-11C	09-Sep-15	H15090206-037	Natural Sample	Barium, Total	<0.065 mm	434	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Barium, Total	<0.065 mm	492	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-043	Natural Sample	Barium, Total	<0.065 mm	300	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-046	Natural Sample	Barium, Total	<0.065 mm	459	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Barium, Total	<0.065 mm	488	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Barium, Total	<0.065 mm	285	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Barium, Total	<0.065 mm	322	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Barium, Total	<0.065 mm	355	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Barium, Total	<0.065 mm	340	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-064	Natural Sample	Barium, Total	<0.065 mm	330	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-031	Duplicate	Barium, Total	<0.065 mm	247	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-004	Natural Sample	Barium, Total	<0.065 mm	271	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Barium, Total	<0.065 mm	319	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Barium, Total	<0.065 mm	536	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-022	Natural Sample	Barium, Total	<0.065 mm	403	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-025	Natural Sample	Barium, Total	<0.065 mm	310	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Barium, Total	<0.065 mm	291	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Barium, Total	<0.065 mm	325	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Barium, Total	<0.065 mm	459	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Barium, Total	<0.065 mm	416	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Barium, Total	<0.065 mm	320	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-030	Duplicate	Barium, Total	0.065-1 mm	239	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-033	Duplicate	Barium, Total	0.065-1 mm	238	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-053	Duplicate	Barium, Total	0.065-1 mm	167	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-023	Duplicate	Barium, Total	0.065-1 mm	123	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-050	Duplicate	Barium, Total	0.065-1 mm	180	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-035	Duplicate	Barium, Total	0.065-1 mm	246	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-007	Natural Sample	Barium, Total	0.065-1 mm	63	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Barium, Total	0.065-1 mm	71	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Barium, Total	0.065-1 mm	113	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-021	Natural Sample	Barium, Total	0.065-1 mm	87	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-024	Natural Sample	Barium, Total	0.065-1 mm	138	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Barium, Total	0.065-1 mm	231	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Barium, Total	0.065-1 mm	151	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Barium, Total	0.065-1 mm	104	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Barium, Total	0.065-1 mm	108	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-045	Natural Sample	Barium, Total	0.065-1 mm	159	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-048	Natural Sample	Barium, Total	0.065-1 mm	122	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Barium, Total	0.065-1 mm	133	5	mg/kg - dry	SW6010B

SS-15G	26-Mar-15	H15030393-013	Natural Sample	Barium, Total	0.065-1 mm	181	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Barium, Total	0.065-1 mm	136	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Barium, Total	0.065-1 mm	120	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Barium, Total	0.065-1 mm	111	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-063	Natural Sample	Barium, Total	0.065-1 mm	98	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-005	Natural Sample	Barium, Total	0.065-1 mm	61	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-008	Natural Sample	Barium, Total	0.065-1 mm	59	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-020	Natural Sample	Barium, Total	0.065-1 mm	113	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-026	Natural Sample	Barium, Total	0.065-1 mm	97	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-029	Natural Sample	Barium, Total	0.065-1 mm	106	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-032	Natural Sample	Barium, Total	0.065-1 mm	211	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-035	Natural Sample	Barium, Total	0.065-1 mm	87	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-038	Natural Sample	Barium, Total	0.065-1 mm	105	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-041	Natural Sample	Barium, Total	0.065-1 mm	130	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-044	Natural Sample	Barium, Total	0.065-1 mm	224	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-047	Natural Sample	Barium, Total	0.065-1 mm	152	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-050	Natural Sample	Barium, Total	0.065-1 mm	227	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-011	Natural Sample	Barium, Total	0.065-1 mm	275	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-056	Natural Sample	Barium, Total	0.065-1 mm	200	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-059	Natural Sample	Barium, Total	0.065-1 mm	131	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-062	Natural Sample	Barium, Total	0.065-1 mm	123	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-065	Natural Sample	Barium, Total	0.065-1 mm	109	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-005	Natural Sample	Barium, Total	0.065-1 mm	53	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Barium, Total	0.065-1 mm	65	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Barium, Total	0.065-1 mm	90	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-023	Natural Sample	Barium, Total	0.065-1 mm	67	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-026	Natural Sample	Barium, Total	0.065-1 mm	81	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Barium, Total	0.065-1 mm	115	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Barium, Total	0.065-1 mm	102	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Barium, Total	0.065-1 mm	112	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Barium, Total	0.065-1 mm	126	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-044	Natural Sample	Barium, Total	0.065-1 mm	195	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-047	Natural Sample	Barium, Total	0.065-1 mm	152	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Barium, Total	0.065-1 mm	90	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Barium, Total	0.065-1 mm	119	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Barium, Total	0.065-1 mm	105	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Barium, Total	0.065-1 mm	104	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Barium, Total	0.065-1 mm	102	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-065	Natural Sample	Barium, Total	0.065-1 mm	58	5	mg/kg - dry	SW6010B

SS-10A	09-Sep-15	H15090206-032	Duplicate	Barium, Total	0.065-1 mm	96	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-005	Natural Sample	Barium, Total	0.065-1 mm	53	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Barium, Total	0.065-1 mm	81	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Barium, Total	0.065-1 mm	111	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-023	Natural Sample	Barium, Total	0.065-1 mm	70	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-026	Natural Sample	Barium, Total	0.065-1 mm	62	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Barium, Total	0.065-1 mm	127	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Barium, Total	0.065-1 mm	133	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Barium, Total	0.065-1 mm	18	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Barium, Total	0.065-1 mm	185	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Barium, Total	0.065-1 mm	129	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-031	Duplicate	Barium, Total	1-2 mm	178	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-034	Duplicate	Barium, Total	1-2 mm	274	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-054	Duplicate	Barium, Total	1-2 mm	156	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-024	Duplicate	Barium, Total	1-2 mm	103	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-051	Duplicate	Barium, Total	1-2 mm	269	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-036	Duplicate	Barium, Total	1-2 mm	82	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-008	Natural Sample	Barium, Total	1-2 mm	46	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Barium, Total	1-2 mm	64	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Barium, Total	1-2 mm	83	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-022	Natural Sample	Barium, Total	1-2 mm	34	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-025	Natural Sample	Barium, Total	1-2 mm	90	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Barium, Total	1-2 mm	312	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Barium, Total	1-2 mm	59	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Barium, Total	1-2 mm	79	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Barium, Total	1-2 mm	72	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-046	Natural Sample	Barium, Total	1-2 mm	148	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-049	Natural Sample	Barium, Total	1-2 mm	111	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Barium, Total	1-2 mm	71	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Barium, Total	1-2 mm	128	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Barium, Total	1-2 mm	103	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Barium, Total	1-2 mm	79	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Barium, Total	1-2 mm	77	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-064	Natural Sample	Barium, Total	1-2 mm	92	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-006	Natural Sample	Barium, Total	1-2 mm	52	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-009	Natural Sample	Barium, Total	1-2 mm	67	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-021	Natural Sample	Barium, Total	1-2 mm	102	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-027	Natural Sample	Barium, Total	1-2 mm	82	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-030	Natural Sample	Barium, Total	1-2 mm	72	5	mg/kg - dry	SW6010B

SS-10A	15-May-15	H15050235-033	Natural Sample	Barium, Total	1-2 mm	413	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-036	Natural Sample	Barium, Total	1-2 mm	79	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-039	Natural Sample	Barium, Total	1-2 mm	161	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-042	Natural Sample	Barium, Total	1-2 mm	114	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-045	Natural Sample	Barium, Total	1-2 mm	138	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-048	Natural Sample	Barium, Total	1-2 mm	201	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-051	Natural Sample	Barium, Total	1-2 mm	85	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-012	Natural Sample	Barium, Total	1-2 mm	314	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Barium, Total	1-2 mm	222	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-060	Natural Sample	Barium, Total	1-2 mm	73	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-063	Natural Sample	Barium, Total	1-2 mm	215	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-066	Natural Sample	Barium, Total	1-2 mm	114	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-006	Natural Sample	Barium, Total	1-2 mm	61	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Barium, Total	1-2 mm	182	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Barium, Total	1-2 mm	90	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-024	Natural Sample	Barium, Total	1-2 mm	56	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-027	Natural Sample	Barium, Total	1-2 mm	248	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Barium, Total	1-2 mm	68	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Barium, Total	1-2 mm	97	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Barium, Total	1-2 mm	91	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Barium, Total	1-2 mm	132	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-045	Natural Sample	Barium, Total	1-2 mm	127	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-048	Natural Sample	Barium, Total	1-2 mm	131	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Barium, Total	1-2 mm	95	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Barium, Total	1-2 mm	128	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Barium, Total	1-2 mm	77	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Barium, Total	1-2 mm	104	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Barium, Total	1-2 mm	88	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-066	Natural Sample	Barium, Total	1-2 mm	55	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-033	Duplicate	Barium, Total	1-2 mm	55	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-006	Natural Sample	Barium, Total	1-2 mm	43	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Barium, Total	1-2 mm	67	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Barium, Total	1-2 mm	111	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-024	Natural Sample	Barium, Total	1-2 mm	277	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-027	Natural Sample	Barium, Total	1-2 mm	38	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Barium, Total	1-2 mm	78	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Barium, Total	1-2 mm	85	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Barium, Total	1-2 mm	91	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Barium, Total	1-2 mm	160	5	mg/kg - dry	SW6010B

SS-17D	03-Dec-15	H15120093-045	Natural Sample	Barium, Total	1-2 mm	59	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-029	Duplicate	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-032	Duplicate	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-052	Duplicate	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-022	Duplicate	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-049	Duplicate	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-034	Duplicate	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-006	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-020	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-023	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-044	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-047	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-062	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-004	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-007	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-019	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-025	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-028	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-031	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-034	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-037	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-040	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-043	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-046	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-049	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-010	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-058	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B

SS-17D	14-May-15	H15050235-061	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-064	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-004	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-022	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-025	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-043	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-046	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-064	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-031	Duplicate	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-004	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-022	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-025	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Beryllium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-030	Duplicate	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-033	Duplicate	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-053	Duplicate	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-023	Duplicate	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-050	Duplicate	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-035	Duplicate	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-007	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B

SS-07	27-Mar-15	H15030394-021	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-024	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-045	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-048	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-063	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-005	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-008	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-020	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-026	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-029	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-032	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-035	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-038	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-041	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-044	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-047	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-050	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-011	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-056	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-059	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-062	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-065	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-005	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-023	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-026	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B

SS-11D	09-Sep-15	H15090206-041	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-044	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-047	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-065	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-032	Duplicate	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-005	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-023	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-026	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Beryllium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-031	Duplicate	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-034	Duplicate	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-054	Duplicate	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-024	Duplicate	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-051	Duplicate	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-036	Duplicate	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-008	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-022	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-025	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-046	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-049	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B

SS-15B	26-Mar-15	H15030394-055	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-064	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-006	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-009	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-021	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-027	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-030	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-033	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-036	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-039	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-042	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-045	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-048	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-051	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-012	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-060	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-063	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-066	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-006	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-024	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-027	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-045	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-048	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-066	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-033	Duplicate	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B

SS-01	04-Dec-15	H15120092-006	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-024	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-027	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Beryllium, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-029	Duplicate	Boron, Total	<0.065 mm	10	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-032	Duplicate	Boron, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-052	Duplicate	Boron, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-022	Duplicate	Boron, Total	<0.065 mm	9	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-049	Duplicate	Boron, Total	<0.065 mm	9	6	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-034	Duplicate	Boron, Total	<0.065 mm	13	8	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-006	Natural Sample	Boron, Total	<0.065 mm	10	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Boron, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Boron, Total	<0.065 mm	16	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-020	Natural Sample	Boron, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-023	Natural Sample	Boron, Total	<0.065 mm	15	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Boron, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Boron, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Boron, Total	<0.065 mm	14	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Boron, Total	<0.065 mm	14	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-044	Natural Sample	Boron, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-047	Natural Sample	Boron, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Boron, Total	<0.065 mm	9	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Boron, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Boron, Total	<0.065 mm	21	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Boron, Total	<0.065 mm	10	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Boron, Total	<0.065 mm	11	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-062	Natural Sample	Boron, Total	<0.065 mm	7	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-004	Natural Sample	Boron, Total	<0.065 mm	10	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-007	Natural Sample	Boron, Total	<0.065 mm	11	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-019	Natural Sample	Boron, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-025	Natural Sample	Boron, Total	<0.065 mm	10	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-028	Natural Sample	Boron, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-031	Natural Sample	Boron, Total	<0.065 mm	10	5	mg/kg - dry	SW6010B

SS-10B	15-May-15	H15050235-034	Natural Sample	Boron, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-037	Natural Sample	Boron, Total	<0.065 mm	14	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-040	Natural Sample	Boron, Total	<0.065 mm	15	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-043	Natural Sample	Boron, Total	<0.065 mm	14	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-046	Natural Sample	Boron, Total	<0.065 mm	10	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-049	Natural Sample	Boron, Total	<0.065 mm	9	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-010	Natural Sample	Boron, Total	<0.065 mm	9	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Boron, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-058	Natural Sample	Boron, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-061	Natural Sample	Boron, Total	<0.065 mm	8	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-064	Natural Sample	Boron, Total	<0.065 mm	9	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-004	Natural Sample	Boron, Total	<0.065 mm	11	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Boron, Total	<0.065 mm	11	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Boron, Total	<0.065 mm	13	7	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-022	Natural Sample	Boron, Total	<0.065 mm	15	8	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-025	Natural Sample	Boron, Total	<0.065 mm	14	8	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Boron, Total	<0.065 mm	12	8	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Boron, Total	<0.065 mm	11	7	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Boron, Total	<0.065 mm	10	6	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Boron, Total	<0.065 mm	10	6	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-043	Natural Sample	Boron, Total	<0.065 mm	10	8	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-046	Natural Sample	Boron, Total	<0.065 mm	12	6	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Boron, Total	<0.065 mm	16	10	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Boron, Total	<0.065 mm	11	7	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Boron, Total	<0.065 mm	10	9	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Boron, Total	<0.065 mm	8	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Boron, Total	<0.065 mm	7	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-064	Natural Sample	Boron, Total	<0.065 mm	7	6	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-031	Duplicate	Boron, Total	<0.065 mm	11	7	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-004	Natural Sample	Boron, Total	<0.065 mm	8	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Boron, Total	<0.065 mm	11	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Boron, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-022	Natural Sample	Boron, Total	<0.065 mm	10	6	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-025	Natural Sample	Boron, Total	<0.065 mm	14	7	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Boron, Total	<0.065 mm	13	7	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Boron, Total	<0.065 mm	14	7	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Boron, Total	<0.065 mm	13	7	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Boron, Total	<0.065 mm	10	6	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Boron, Total	<0.065 mm	8	5	mg/kg - dry	SW6010B

SS-10A	27-Mar-15	H15030394-030	Duplicate	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-033	Duplicate	Boron, Total	0.065-1 mm	5	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-053	Duplicate	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-023	Duplicate	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-050	Duplicate	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-035	Duplicate	Boron, Total	0.065-1 mm	8	6	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-007	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-021	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-024	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-045	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-048	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-063	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-005	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-008	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-020	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-026	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-029	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-032	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-035	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-038	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-041	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-044	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-047	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-050	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-011	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-056	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-059	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-062	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B

SS-19	14-May-15	H15050235-065	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-005	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-023	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-026	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-044	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-047	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-065	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-032	Duplicate	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-005	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-023	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-026	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Boron, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-031	Duplicate	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-034	Duplicate	Boron, Total	1-2 mm	6	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-054	Duplicate	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-024	Duplicate	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-051	Duplicate	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-036	Duplicate	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-008	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-022	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B

SS-08	27-Mar-15	H15030394-025	Natural Sample	Boron, Total	1-2 mm	6	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Boron, Total	1-2 mm	6	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-046	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-049	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-064	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-006	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-009	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-021	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-027	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-030	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-033	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-036	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-039	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-042	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-045	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-048	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-051	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-012	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-060	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-063	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-066	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-006	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-024	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-027	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B

SS-13	08-Sep-15	H15090206-045	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-048	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-066	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-033	Duplicate	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-006	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Boron, Total	1-2 mm	7	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-024	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-027	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Boron, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-029	Duplicate	Cadmium, Total	<0.065 mm	7	2	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-032	Duplicate	Cadmium, Total	<0.065 mm	12	2	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-052	Duplicate	Cadmium, Total	<0.065 mm	9.3	0.5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-022	Duplicate	Cadmium, Total	<0.065 mm	8.3	0.4	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-049	Duplicate	Cadmium, Total	<0.065 mm	7.2	0.4	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-034	Duplicate	Cadmium, Total	<0.065 mm	7.6	0.7	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-006	Natural Sample	Cadmium, Total	<0.065 mm	5	1	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Cadmium, Total	<0.065 mm	15	2	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Cadmium, Total	<0.065 mm	11	2	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-020	Natural Sample	Cadmium, Total	<0.065 mm	9	2	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-023	Natural Sample	Cadmium, Total	<0.065 mm	11	2	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Cadmium, Total	<0.065 mm	9	2	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Cadmium, Total	<0.065 mm	10	2	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Cadmium, Total	<0.065 mm	9	2	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Cadmium, Total	<0.065 mm	12	2	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-044	Natural Sample	Cadmium, Total	<0.065 mm	10	3	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-047	Natural Sample	Cadmium, Total	<0.065 mm	7.9	0.5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Cadmium, Total	<0.065 mm	24	2	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Cadmium, Total	<0.065 mm	ND	2	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Cadmium, Total	<0.065 mm	19	3	mg/kg - dry	SW6020

SS-16B	26-Mar-15	H15030394-056	Natural Sample	Cadmium, Total	<0.065 mm	11	2	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Cadmium, Total	<0.065 mm	15	2	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-062	Natural Sample	Cadmium, Total	<0.065 mm	97	1	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-004	Natural Sample	Cadmium, Total	<0.065 mm	1.8	0.2	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-007	Natural Sample	Cadmium, Total	<0.065 mm	15.1	0.2	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-019	Natural Sample	Cadmium, Total	<0.065 mm	7.4	0.4	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-025	Natural Sample	Cadmium, Total	<0.065 mm	8.9	0.4	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-028	Natural Sample	Cadmium, Total	<0.065 mm	14	0.7	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-031	Natural Sample	Cadmium, Total	<0.065 mm	5.8	0.5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-034	Natural Sample	Cadmium, Total	<0.065 mm	8.2	0.5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-037	Natural Sample	Cadmium, Total	<0.065 mm	8.9	0.5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-040	Natural Sample	Cadmium, Total	<0.065 mm	7.3	0.6	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-043	Natural Sample	Cadmium, Total	<0.065 mm	10.1	0.5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-046	Natural Sample	Cadmium, Total	<0.065 mm	8.4	0.5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-049	Natural Sample	Cadmium, Total	<0.065 mm	9.6	0.4	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-010	Natural Sample	Cadmium, Total	<0.065 mm	1.2	0.4	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Cadmium, Total	<0.065 mm	8.5	0.5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-058	Natural Sample	Cadmium, Total	<0.065 mm	9.9	0.4	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-061	Natural Sample	Cadmium, Total	<0.065 mm	6.2	0.4	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-064	Natural Sample	Cadmium, Total	<0.065 mm	3.9	0.3	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-004	Natural Sample	Cadmium, Total	<0.065 mm	1.8	0.4	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Cadmium, Total	<0.065 mm	14.1	0.4	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Cadmium, Total	<0.065 mm	11.4	0.5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-022	Natural Sample	Cadmium, Total	<0.065 mm	10.5	0.6	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-025	Natural Sample	Cadmium, Total	<0.065 mm	9.9	0.6	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Cadmium, Total	<0.065 mm	5.9	0.6	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Cadmium, Total	<0.065 mm	7.3	0.5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Cadmium, Total	<0.065 mm	10.1	0.5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Cadmium, Total	<0.065 mm	11.3	0.5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-043	Natural Sample	Cadmium, Total	<0.065 mm	10.1	0.6	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-046	Natural Sample	Cadmium, Total	<0.065 mm	8.1	0.5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Cadmium, Total	<0.065 mm	16	1	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Cadmium, Total	<0.065 mm	1.8	0.5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Cadmium, Total	<0.065 mm	8.1	0.7	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Cadmium, Total	<0.065 mm	7.6	0.3	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Cadmium, Total	<0.065 mm	12	0.4	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-064	Natural Sample	Cadmium, Total	<0.065 mm	13.2	0.4	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-031	Duplicate	Cadmium, Total	<0.065 mm	3.3	0.5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-004	Natural Sample	Cadmium, Total	<0.065 mm	1.7	0.4	mg/kg - dry	SW6020

SS-05A	04-Dec-15	H15120092-007	Natural Sample	Cadmium, Total	<0.065 mm	12.5	0.3	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Cadmium, Total	<0.065 mm	9.8	0.4	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-022	Natural Sample	Cadmium, Total	<0.065 mm	10	0.5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-025	Natural Sample	Cadmium, Total	<0.065 mm	9.3	0.5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Cadmium, Total	<0.065 mm	3.3	0.5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Cadmium, Total	<0.065 mm	8.2	0.6	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Cadmium, Total	<0.065 mm	13.6	0.5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Cadmium, Total	<0.065 mm	10.7	0.5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Cadmium, Total	<0.065 mm	14.1	0.4	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-030	Duplicate	Cadmium, Total	0.065-1 mm	3.5	0.3	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-033	Duplicate	Cadmium, Total	0.065-1 mm	3.2	0.3	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-053	Duplicate	Cadmium, Total	0.065-1 mm	2.1	0.2	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-023	Duplicate	Cadmium, Total	0.065-1 mm	1.5	0.2	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-050	Duplicate	Cadmium, Total	0.065-1 mm	0.6	0.2	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-035	Duplicate	Cadmium, Total	0.065-1 mm	4.3	0.5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-007	Natural Sample	Cadmium, Total	0.065-1 mm	0.2	0.2	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Cadmium, Total	0.065-1 mm	2.5	0.2	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Cadmium, Total	0.065-1 mm	1.9	0.2	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-021	Natural Sample	Cadmium, Total	0.065-1 mm	2.5	0.2	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-024	Natural Sample	Cadmium, Total	0.065-1 mm	4	0.2	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Cadmium, Total	0.065-1 mm	3.1	0.3	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Cadmium, Total	0.065-1 mm	3.2	0.3	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Cadmium, Total	0.065-1 mm	1.6	0.3	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Cadmium, Total	0.065-1 mm	0.5	0.2	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-045	Natural Sample	Cadmium, Total	0.065-1 mm	1.1	0.2	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-048	Natural Sample	Cadmium, Total	0.065-1 mm	1.5	0.2	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Cadmium, Total	0.065-1 mm	7.8	0.2	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Cadmium, Total	0.065-1 mm	0.3	0.2	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Cadmium, Total	0.065-1 mm	1.5	0.2	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Cadmium, Total	0.065-1 mm	1.3	0.2	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Cadmium, Total	0.065-1 mm	0.8	0.2	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-063	Natural Sample	Cadmium, Total	0.065-1 mm	2.9	0.2	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-005	Natural Sample	Cadmium, Total	0.065-1 mm	0.3	0.2	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-008	Natural Sample	Cadmium, Total	0.065-1 mm	2.9	0.2	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-020	Natural Sample	Cadmium, Total	0.065-1 mm	1.4	0.2	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-026	Natural Sample	Cadmium, Total	0.065-1 mm	2.1	0.2	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-029	Natural Sample	Cadmium, Total	0.065-1 mm	2.2	0.2	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-032	Natural Sample	Cadmium, Total	0.065-1 mm	2.8	0.3	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-035	Natural Sample	Cadmium, Total	0.065-1 mm	1.5	0.2	mg/kg - dry	SW6020

SS-11C	15-May-15	H15050235-038	Natural Sample	Cadmium, Total	0.065-1 mm	0.8	0.2	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-041	Natural Sample	Cadmium, Total	0.065-1 mm	0.6	0.2	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-044	Natural Sample	Cadmium, Total	0.065-1 mm	2.9	0.3	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-047	Natural Sample	Cadmium, Total	0.065-1 mm	1	0.2	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-050	Natural Sample	Cadmium, Total	0.065-1 mm	4	0.3	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-011	Natural Sample	Cadmium, Total	0.065-1 mm	ND	0.2	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-056	Natural Sample	Cadmium, Total	0.065-1 mm	1.4	0.2	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-059	Natural Sample	Cadmium, Total	0.065-1 mm	0.8	0.2	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-062	Natural Sample	Cadmium, Total	0.065-1 mm	0.8	0.2	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-065	Natural Sample	Cadmium, Total	0.065-1 mm	0.6	0.2	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-005	Natural Sample	Cadmium, Total	0.065-1 mm	0.5	0.2	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Cadmium, Total	0.065-1 mm	2.9	0.2	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Cadmium, Total	0.065-1 mm	0.7	0.2	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-023	Natural Sample	Cadmium, Total	0.065-1 mm	1.2	0.2	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-026	Natural Sample	Cadmium, Total	0.065-1 mm	2.6	0.2	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Cadmium, Total	0.065-1 mm	2	0.2	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Cadmium, Total	0.065-1 mm	1.8	0.2	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Cadmium, Total	0.065-1 mm	1.2	0.2	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Cadmium, Total	0.065-1 mm	0.6	0.2	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-044	Natural Sample	Cadmium, Total	0.065-1 mm	2.1	0.2	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-047	Natural Sample	Cadmium, Total	0.065-1 mm	0.8	0.2	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Cadmium, Total	0.065-1 mm	2.5	0.2	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Cadmium, Total	0.065-1 mm	ND	0.2	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Cadmium, Total	0.065-1 mm	3.6	0.2	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Cadmium, Total	0.065-1 mm	1.1	0.2	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Cadmium, Total	0.065-1 mm	0.9	0.2	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-065	Natural Sample	Cadmium, Total	0.065-1 mm	0.6	0.2	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-032	Duplicate	Cadmium, Total	0.065-1 mm	1.2	0.2	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-005	Natural Sample	Cadmium, Total	0.065-1 mm	0.3	0.2	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Cadmium, Total	0.065-1 mm	3.3	0.2	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Cadmium, Total	0.065-1 mm	1.2	0.2	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-023	Natural Sample	Cadmium, Total	0.065-1 mm	1.1	0.2	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-026	Natural Sample	Cadmium, Total	0.065-1 mm	2.5	0.2	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Cadmium, Total	0.065-1 mm	1.1	0.2	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Cadmium, Total	0.065-1 mm	3	0.3	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Cadmium, Total	0.065-1 mm	0.2	0.2	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Cadmium, Total	0.065-1 mm	1.6	0.2	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Cadmium, Total	0.065-1 mm	1.3	0.2	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-031	Duplicate	Cadmium, Total	1-2 mm	0.9	0.2	mg/kg - dry	SW6020

SS-10A	27-Mar-15	H15030394-034	Duplicate	Cadmium, Total	1-2 mm	1.5	0.3	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-054	Duplicate	Cadmium, Total	1-2 mm	1.7	0.2	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-024	Duplicate	Cadmium, Total	1-2 mm	0.4	0.2	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-051	Duplicate	Cadmium, Total	1-2 mm	0.8	0.2	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-036	Duplicate	Cadmium, Total	1-2 mm	0.6	0.2	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-008	Natural Sample	Cadmium, Total	1-2 mm	ND	0.2	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Cadmium, Total	1-2 mm	1	0.2	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Cadmium, Total	1-2 mm	0.6	0.2	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-022	Natural Sample	Cadmium, Total	1-2 mm	0.5	0.2	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-025	Natural Sample	Cadmium, Total	1-2 mm	2.4	0.2	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Cadmium, Total	1-2 mm	2	1	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Cadmium, Total	1-2 mm	0.8	0.2	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Cadmium, Total	1-2 mm	0.7	0.2	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Cadmium, Total	1-2 mm	0.3	0.2	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-046	Natural Sample	Cadmium, Total	1-2 mm	0.4	0.2	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-049	Natural Sample	Cadmium, Total	1-2 mm	0.4	0.2	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Cadmium, Total	1-2 mm	4.7	0.2	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Cadmium, Total	1-2 mm	ND	0.2	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Cadmium, Total	1-2 mm	0.7	0.2	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Cadmium, Total	1-2 mm	0.4	0.2	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Cadmium, Total	1-2 mm	1	1	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-064	Natural Sample	Cadmium, Total	1-2 mm	1.3	0.9	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-006	Natural Sample	Cadmium, Total	1-2 mm	ND	0.2	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-009	Natural Sample	Cadmium, Total	1-2 mm	1.7	0.2	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-021	Natural Sample	Cadmium, Total	1-2 mm	0.5	0.2	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-027	Natural Sample	Cadmium, Total	1-2 mm	5	0.2	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-030	Natural Sample	Cadmium, Total	1-2 mm	2.6	0.2	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-033	Natural Sample	Cadmium, Total	1-2 mm	2.2	0.3	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-036	Natural Sample	Cadmium, Total	1-2 mm	0.5	0.2	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-039	Natural Sample	Cadmium, Total	1-2 mm	0.4	0.2	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-042	Natural Sample	Cadmium, Total	1-2 mm	0.3	0.2	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-045	Natural Sample	Cadmium, Total	1-2 mm	0.7	0.2	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-048	Natural Sample	Cadmium, Total	1-2 mm	0.4	0.2	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-051	Natural Sample	Cadmium, Total	1-2 mm	1.3	0.2	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-012	Natural Sample	Cadmium, Total	1-2 mm	0.3	0.3	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Cadmium, Total	1-2 mm	0.8	0.2	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-060	Natural Sample	Cadmium, Total	1-2 mm	0.4	0.2	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-063	Natural Sample	Cadmium, Total	1-2 mm	0.8	0.2	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-066	Natural Sample	Cadmium, Total	1-2 mm	0.2	0.2	mg/kg - dry	SW6020

SS-01	09-Sep-15	H15090199-006	Natural Sample	Cadmium, Total	1-2 mm	0.3	0.2	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Cadmium, Total	1-2 mm	1.3	0.2	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Cadmium, Total	1-2 mm	0.6	0.2	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-024	Natural Sample	Cadmium, Total	1-2 mm	0.5	0.2	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-027	Natural Sample	Cadmium, Total	1-2 mm	1.3	0.2	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Cadmium, Total	1-2 mm	0.6	0.2	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Cadmium, Total	1-2 mm	0.7	0.2	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Cadmium, Total	1-2 mm	0.4	0.2	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Cadmium, Total	1-2 mm	0.4	0.2	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-045	Natural Sample	Cadmium, Total	1-2 mm	0.4	0.2	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-048	Natural Sample	Cadmium, Total	1-2 mm	0.4	0.2	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Cadmium, Total	1-2 mm	1.3	0.2	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Cadmium, Total	1-2 mm	ND	0.2	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Cadmium, Total	1-2 mm	0.3	0.2	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Cadmium, Total	1-2 mm	0.4	0.2	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Cadmium, Total	1-2 mm	0.4	0.2	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-066	Natural Sample	Cadmium, Total	1-2 mm	0.2	0.2	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-033	Duplicate	Cadmium, Total	1-2 mm	0.3	0.2	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-006	Natural Sample	Cadmium, Total	1-2 mm	ND	0.2	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Cadmium, Total	1-2 mm	2.2	0.2	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Cadmium, Total	1-2 mm	0.8	0.2	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-024	Natural Sample	Cadmium, Total	1-2 mm	0.9	0.2	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-027	Natural Sample	Cadmium, Total	1-2 mm	1.1	0.2	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Cadmium, Total	1-2 mm	0.3	0.2	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Cadmium, Total	1-2 mm	1.1	0.2	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Cadmium, Total	1-2 mm	0.3	0.2	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Cadmium, Total	1-2 mm	0.4	0.2	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Cadmium, Total	1-2 mm	0.5	0.2	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-029	Duplicate	Chromium, Total	<0.065 mm	23	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-032	Duplicate	Chromium, Total	<0.065 mm	27	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-052	Duplicate	Chromium, Total	<0.065 mm	30	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-022	Duplicate	Chromium, Total	<0.065 mm	54	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-049	Duplicate	Chromium, Total	<0.065 mm	24	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-034	Duplicate	Chromium, Total	<0.065 mm	28	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-006	Natural Sample	Chromium, Total	<0.065 mm	56	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Chromium, Total	<0.065 mm	63	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Chromium, Total	<0.065 mm	45	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-020	Natural Sample	Chromium, Total	<0.065 mm	45	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-023	Natural Sample	Chromium, Total	<0.065 mm	34	5	mg/kg - dry	SW6020

SS-10A	27-Mar-15	H15030394-026	Natural Sample	Chromium, Total	<0.065 mm	26	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Chromium, Total	<0.065 mm	28	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Chromium, Total	<0.065 mm	27	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Chromium, Total	<0.065 mm	41	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-044	Natural Sample	Chromium, Total	<0.065 mm	39	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-047	Natural Sample	Chromium, Total	<0.065 mm	32	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Chromium, Total	<0.065 mm	43	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Chromium, Total	<0.065 mm	72	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Chromium, Total	<0.065 mm	44	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Chromium, Total	<0.065 mm	55	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Chromium, Total	<0.065 mm	59	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-062	Natural Sample	Chromium, Total	<0.065 mm	50	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-004	Natural Sample	Chromium, Total	<0.065 mm	50	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-007	Natural Sample	Chromium, Total	<0.065 mm	58	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-019	Natural Sample	Chromium, Total	<0.065 mm	46	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-025	Natural Sample	Chromium, Total	<0.065 mm	43	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-028	Natural Sample	Chromium, Total	<0.065 mm	36	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-031	Natural Sample	Chromium, Total	<0.065 mm	18	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-034	Natural Sample	Chromium, Total	<0.065 mm	25	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-037	Natural Sample	Chromium, Total	<0.065 mm	28	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-040	Natural Sample	Chromium, Total	<0.065 mm	59	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-043	Natural Sample	Chromium, Total	<0.065 mm	32	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-046	Natural Sample	Chromium, Total	<0.065 mm	31	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-049	Natural Sample	Chromium, Total	<0.065 mm	25	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-010	Natural Sample	Chromium, Total	<0.065 mm	50	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Chromium, Total	<0.065 mm	35	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-058	Natural Sample	Chromium, Total	<0.065 mm	51	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-061	Natural Sample	Chromium, Total	<0.065 mm	37	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-064	Natural Sample	Chromium, Total	<0.065 mm	40	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-004	Natural Sample	Chromium, Total	<0.065 mm	49	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Chromium, Total	<0.065 mm	67	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Chromium, Total	<0.065 mm	53	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-022	Natural Sample	Chromium, Total	<0.065 mm	62	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-025	Natural Sample	Chromium, Total	<0.065 mm	46	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Chromium, Total	<0.065 mm	24	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Chromium, Total	<0.065 mm	23	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Chromium, Total	<0.065 mm	28	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Chromium, Total	<0.065 mm	31	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-043	Natural Sample	Chromium, Total	<0.065 mm	28	5	mg/kg - dry	SW6020

SS-14	08-Sep-15	H15090206-046	Natural Sample	Chromium, Total	<0.065 mm	37	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Chromium, Total	<0.065 mm	42	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Chromium, Total	<0.065 mm	62	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Chromium, Total	<0.065 mm	44	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Chromium, Total	<0.065 mm	45	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Chromium, Total	<0.065 mm	34	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-064	Natural Sample	Chromium, Total	<0.065 mm	47	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-031	Duplicate	Chromium, Total	<0.065 mm	22	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-004	Natural Sample	Chromium, Total	<0.065 mm	50	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Chromium, Total	<0.065 mm	58	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Chromium, Total	<0.065 mm	63	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-022	Natural Sample	Chromium, Total	<0.065 mm	63	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-025	Natural Sample	Chromium, Total	<0.065 mm	44	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Chromium, Total	<0.065 mm	32	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Chromium, Total	<0.065 mm	20	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Chromium, Total	<0.065 mm	29	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Chromium, Total	<0.065 mm	30	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Chromium, Total	<0.065 mm	39	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-030	Duplicate	Chromium, Total	0.065-1 mm	12	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-033	Duplicate	Chromium, Total	0.065-1 mm	10	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-053	Duplicate	Chromium, Total	0.065-1 mm	14	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-023	Duplicate	Chromium, Total	0.065-1 mm	11	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-050	Duplicate	Chromium, Total	0.065-1 mm	12	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-035	Duplicate	Chromium, Total	0.065-1 mm	15	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-007	Natural Sample	Chromium, Total	0.065-1 mm	16	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Chromium, Total	0.065-1 mm	19	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Chromium, Total	0.065-1 mm	12	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-021	Natural Sample	Chromium, Total	0.065-1 mm	18	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-024	Natural Sample	Chromium, Total	0.065-1 mm	13	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Chromium, Total	0.065-1 mm	11	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Chromium, Total	0.065-1 mm	15	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Chromium, Total	0.065-1 mm	25	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Chromium, Total	0.065-1 mm	9	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-045	Natural Sample	Chromium, Total	0.065-1 mm	10	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-048	Natural Sample	Chromium, Total	0.065-1 mm	16	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Chromium, Total	0.065-1 mm	33	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Chromium, Total	0.065-1 mm	17	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Chromium, Total	0.065-1 mm	16	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Chromium, Total	0.065-1 mm	25	5	mg/kg - dry	SW6020

SS-17D	26-Mar-15	H15030394-060	Natural Sample	Chromium, Total	0.065-1 mm	9	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-063	Natural Sample	Chromium, Total	0.065-1 mm	15	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-005	Natural Sample	Chromium, Total	0.065-1 mm	12	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-008	Natural Sample	Chromium, Total	0.065-1 mm	34	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-020	Natural Sample	Chromium, Total	0.065-1 mm	11	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-026	Natural Sample	Chromium, Total	0.065-1 mm	22	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-029	Natural Sample	Chromium, Total	0.065-1 mm	5	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-032	Natural Sample	Chromium, Total	0.065-1 mm	13	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-035	Natural Sample	Chromium, Total	0.065-1 mm	20	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-038	Natural Sample	Chromium, Total	0.065-1 mm	10	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-041	Natural Sample	Chromium, Total	0.065-1 mm	11	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-044	Natural Sample	Chromium, Total	0.065-1 mm	14	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-047	Natural Sample	Chromium, Total	0.065-1 mm	13	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-050	Natural Sample	Chromium, Total	0.065-1 mm	17	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-011	Natural Sample	Chromium, Total	0.065-1 mm	20	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-056	Natural Sample	Chromium, Total	0.065-1 mm	17	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-059	Natural Sample	Chromium, Total	0.065-1 mm	19	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-062	Natural Sample	Chromium, Total	0.065-1 mm	14	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-065	Natural Sample	Chromium, Total	0.065-1 mm	10	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-005	Natural Sample	Chromium, Total	0.065-1 mm	14	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Chromium, Total	0.065-1 mm	65	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Chromium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-023	Natural Sample	Chromium, Total	0.065-1 mm	9	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-026	Natural Sample	Chromium, Total	0.065-1 mm	7	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Chromium, Total	0.065-1 mm	14	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Chromium, Total	0.065-1 mm	10	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Chromium, Total	0.065-1 mm	20	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Chromium, Total	0.065-1 mm	8	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-044	Natural Sample	Chromium, Total	0.065-1 mm	12	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-047	Natural Sample	Chromium, Total	0.065-1 mm	13	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Chromium, Total	0.065-1 mm	12	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Chromium, Total	0.065-1 mm	15	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Chromium, Total	0.065-1 mm	28	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Chromium, Total	0.065-1 mm	14	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Chromium, Total	0.065-1 mm	14	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-065	Natural Sample	Chromium, Total	0.065-1 mm	5	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-032	Duplicate	Chromium, Total	0.065-1 mm	13	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-005	Natural Sample	Chromium, Total	0.065-1 mm	9	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Chromium, Total	0.065-1 mm	24	5	mg/kg - dry	SW6020

SS-06G	04-Dec-15	H15120093-020	Natural Sample	Chromium, Total	0.065-1 mm	7	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-023	Natural Sample	Chromium, Total	0.065-1 mm	11	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-026	Natural Sample	Chromium, Total	0.065-1 mm	5	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Chromium, Total	0.065-1 mm	17	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Chromium, Total	0.065-1 mm	11	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Chromium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Chromium, Total	0.065-1 mm	12	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Chromium, Total	0.065-1 mm	13	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-031	Duplicate	Chromium, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-034	Duplicate	Chromium, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-054	Duplicate	Chromium, Total	1-2 mm	22	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-024	Duplicate	Chromium, Total	1-2 mm	5	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-051	Duplicate	Chromium, Total	1-2 mm	10	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-036	Duplicate	Chromium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-008	Natural Sample	Chromium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Chromium, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Chromium, Total	1-2 mm	5	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-022	Natural Sample	Chromium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-025	Natural Sample	Chromium, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Chromium, Total	1-2 mm	8	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Chromium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Chromium, Total	1-2 mm	9	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Chromium, Total	1-2 mm	11	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-046	Natural Sample	Chromium, Total	1-2 mm	11	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-049	Natural Sample	Chromium, Total	1-2 mm	9	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Chromium, Total	1-2 mm	10	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Chromium, Total	1-2 mm	14	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Chromium, Total	1-2 mm	15	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Chromium, Total	1-2 mm	8	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Chromium, Total	1-2 mm	9	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-064	Natural Sample	Chromium, Total	1-2 mm	7	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-006	Natural Sample	Chromium, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-009	Natural Sample	Chromium, Total	1-2 mm	9	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-021	Natural Sample	Chromium, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-027	Natural Sample	Chromium, Total	1-2 mm	7	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-030	Natural Sample	Chromium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-033	Natural Sample	Chromium, Total	1-2 mm	8	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-036	Natural Sample	Chromium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-039	Natural Sample	Chromium, Total	1-2 mm	5	5	mg/kg - dry	SW6020

SS-11D	15-May-15	H15050235-042	Natural Sample	Chromium, Total	1-2 mm	11	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-045	Natural Sample	Chromium, Total	1-2 mm	12	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-048	Natural Sample	Chromium, Total	1-2 mm	9	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-051	Natural Sample	Chromium, Total	1-2 mm	12	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-012	Natural Sample	Chromium, Total	1-2 mm	18	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Chromium, Total	1-2 mm	17	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-060	Natural Sample	Chromium, Total	1-2 mm	9	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-063	Natural Sample	Chromium, Total	1-2 mm	11	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-066	Natural Sample	Chromium, Total	1-2 mm	8	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-006	Natural Sample	Chromium, Total	1-2 mm	9	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Chromium, Total	1-2 mm	7	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Chromium, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-024	Natural Sample	Chromium, Total	1-2 mm	17	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-027	Natural Sample	Chromium, Total	1-2 mm	5	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Chromium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Chromium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Chromium, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Chromium, Total	1-2 mm	9	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-045	Natural Sample	Chromium, Total	1-2 mm	12	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-048	Natural Sample	Chromium, Total	1-2 mm	7	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Chromium, Total	1-2 mm	12	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Chromium, Total	1-2 mm	14	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Chromium, Total	1-2 mm	11	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Chromium, Total	1-2 mm	8	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Chromium, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-066	Natural Sample	Chromium, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-033	Duplicate	Chromium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-006	Natural Sample	Chromium, Total	1-2 mm	5	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Chromium, Total	1-2 mm	5	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Chromium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-024	Natural Sample	Chromium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-027	Natural Sample	Chromium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Chromium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Chromium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Chromium, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Chromium, Total	1-2 mm	13	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Chromium, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-029	Duplicate	Cobalt, Total	<0.065 mm	11	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-032	Duplicate	Cobalt, Total	<0.065 mm	16	5	mg/kg - dry	SW6010B

SS-15A	14-May-15	H15050235-052	Duplicate	Cobalt, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-022	Duplicate	Cobalt, Total	<0.065 mm	16	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-049	Duplicate	Cobalt, Total	<0.065 mm	9	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-034	Duplicate	Cobalt, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-006	Natural Sample	Cobalt, Total	<0.065 mm	5	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Cobalt, Total	<0.065 mm	6	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Cobalt, Total	<0.065 mm	10	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-020	Natural Sample	Cobalt, Total	<0.065 mm	6	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-023	Natural Sample	Cobalt, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Cobalt, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Cobalt, Total	<0.065 mm	11	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Cobalt, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Cobalt, Total	<0.065 mm	17	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-044	Natural Sample	Cobalt, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-047	Natural Sample	Cobalt, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Cobalt, Total	<0.065 mm	15	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Cobalt, Total	<0.065 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Cobalt, Total	<0.065 mm	16	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Cobalt, Total	<0.065 mm	15	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Cobalt, Total	<0.065 mm	22	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-062	Natural Sample	Cobalt, Total	<0.065 mm	46	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-004	Natural Sample	Cobalt, Total	<0.065 mm	10	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-007	Natural Sample	Cobalt, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-019	Natural Sample	Cobalt, Total	<0.065 mm	16	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-025	Natural Sample	Cobalt, Total	<0.065 mm	15	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-028	Natural Sample	Cobalt, Total	<0.065 mm	11	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-031	Natural Sample	Cobalt, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-034	Natural Sample	Cobalt, Total	<0.065 mm	15	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-037	Natural Sample	Cobalt, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-040	Natural Sample	Cobalt, Total	<0.065 mm	17	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-043	Natural Sample	Cobalt, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-046	Natural Sample	Cobalt, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-049	Natural Sample	Cobalt, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-010	Natural Sample	Cobalt, Total	<0.065 mm	9	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Cobalt, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-058	Natural Sample	Cobalt, Total	<0.065 mm	17	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-061	Natural Sample	Cobalt, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-064	Natural Sample	Cobalt, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-004	Natural Sample	Cobalt, Total	<0.065 mm	9	5	mg/kg - dry	SW6010B

SS-05A	09-Sep-15	H15090199-007	Natural Sample	Cobalt, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Cobalt, Total	<0.065 mm	17	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-022	Natural Sample	Cobalt, Total	<0.065 mm	14	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-025	Natural Sample	Cobalt, Total	<0.065 mm	10	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Cobalt, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Cobalt, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Cobalt, Total	<0.065 mm	14	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Cobalt, Total	<0.065 mm	14	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-043	Natural Sample	Cobalt, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-046	Natural Sample	Cobalt, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Cobalt, Total	<0.065 mm	17	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Cobalt, Total	<0.065 mm	9	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Cobalt, Total	<0.065 mm	9	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Cobalt, Total	<0.065 mm	14	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Cobalt, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-064	Natural Sample	Cobalt, Total	<0.065 mm	18	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-031	Duplicate	Cobalt, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-004	Natural Sample	Cobalt, Total	<0.065 mm	11	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Cobalt, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Cobalt, Total	<0.065 mm	17	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-022	Natural Sample	Cobalt, Total	<0.065 mm	14	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-025	Natural Sample	Cobalt, Total	<0.065 mm	11	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Cobalt, Total	<0.065 mm	16	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Cobalt, Total	<0.065 mm	11	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Cobalt, Total	<0.065 mm	15	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Cobalt, Total	<0.065 mm	11	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Cobalt, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-030	Duplicate	Cobalt, Total	0.065-1 mm	7	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-033	Duplicate	Cobalt, Total	0.065-1 mm	7	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-053	Duplicate	Cobalt, Total	0.065-1 mm	5	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-023	Duplicate	Cobalt, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-050	Duplicate	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-035	Duplicate	Cobalt, Total	0.065-1 mm	7	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-007	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Cobalt, Total	0.065-1 mm	7	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-021	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-024	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Cobalt, Total	0.065-1 mm	8	5	mg/kg - dry	SW6010B

SS-10B	27-Mar-15	H15030394-036	Natural Sample	Cobalt, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Cobalt, Total	0.065-1 mm	5	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-045	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-048	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Cobalt, Total	0.065-1 mm	7	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Cobalt, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-063	Natural Sample	Cobalt, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-005	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-008	Natural Sample	Cobalt, Total	0.065-1 mm	17	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-020	Natural Sample	Cobalt, Total	0.065-1 mm	5	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-026	Natural Sample	Cobalt, Total	0.065-1 mm	9	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-029	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-032	Natural Sample	Cobalt, Total	0.065-1 mm	8	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-035	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-038	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-041	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-044	Natural Sample	Cobalt, Total	0.065-1 mm	5	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-047	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-050	Natural Sample	Cobalt, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-011	Natural Sample	Cobalt, Total	0.065-1 mm	8	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-056	Natural Sample	Cobalt, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-059	Natural Sample	Cobalt, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-062	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-065	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-005	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Cobalt, Total	0.065-1 mm	28	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-023	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-026	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Cobalt, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-044	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-047	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B

SS-15A	08-Sep-15	H15090206-053	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Cobalt, Total	0.065-1 mm	7	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-065	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-032	Duplicate	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-005	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Cobalt, Total	0.065-1 mm	16	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-023	Natural Sample	Cobalt, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-026	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Cobalt, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Cobalt, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-031	Duplicate	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-034	Duplicate	Cobalt, Total	1-2 mm	7	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-054	Duplicate	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-024	Duplicate	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-051	Duplicate	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-036	Duplicate	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-008	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-022	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-025	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Cobalt, Total	1-2 mm	9	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-046	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-049	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B

SS-19	26-Mar-15	H15030394-064	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-006	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-009	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-021	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-027	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-030	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-033	Natural Sample	Cobalt, Total	1-2 mm	9	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-036	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-039	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-042	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-045	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-048	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-051	Natural Sample	Cobalt, Total	1-2 mm	5	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-012	Natural Sample	Cobalt, Total	1-2 mm	9	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-060	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-063	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-066	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-006	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-024	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-027	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-045	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-048	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-066	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-033	Duplicate	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-006	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B

SS-07	04-Dec-15	H15120093-024	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-027	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Cobalt, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-029	Duplicate	Copper, Total	<0.065 mm	421	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-032	Duplicate	Copper, Total	<0.065 mm	644	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-052	Duplicate	Copper, Total	<0.065 mm	843	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-022	Duplicate	Copper, Total	<0.065 mm	759	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-049	Duplicate	Copper, Total	<0.065 mm	350	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-034	Duplicate	Copper, Total	<0.065 mm	596	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-006	Natural Sample	Copper, Total	<0.065 mm	362	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Copper, Total	<0.065 mm	2980	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Copper, Total	<0.065 mm	788	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-020	Natural Sample	Copper, Total	<0.065 mm	813	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-023	Natural Sample	Copper, Total	<0.065 mm	802	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Copper, Total	<0.065 mm	552	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Copper, Total	<0.065 mm	670	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Copper, Total	<0.065 mm	656	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Copper, Total	<0.065 mm	427	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-044	Natural Sample	Copper, Total	<0.065 mm	570	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-047	Natural Sample	Copper, Total	<0.065 mm	554	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Copper, Total	<0.065 mm	3020	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Copper, Total	<0.065 mm	84	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Copper, Total	<0.065 mm	1470	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Copper, Total	<0.065 mm	641	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Copper, Total	<0.065 mm	826	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-062	Natural Sample	Copper, Total	<0.065 mm	35700	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-004	Natural Sample	Copper, Total	<0.065 mm	341	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-007	Natural Sample	Copper, Total	<0.065 mm	2630	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-019	Natural Sample	Copper, Total	<0.065 mm	732	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-025	Natural Sample	Copper, Total	<0.065 mm	773	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-028	Natural Sample	Copper, Total	<0.065 mm	963	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-031	Natural Sample	Copper, Total	<0.065 mm	409	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-034	Natural Sample	Copper, Total	<0.065 mm	634	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-037	Natural Sample	Copper, Total	<0.065 mm	562	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-040	Natural Sample	Copper, Total	<0.065 mm	409	5	mg/kg - dry	SW6010B

SS-13	14-May-15	H15050235-043	Natural Sample	Copper, Total	<0.065 mm	715	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-046	Natural Sample	Copper, Total	<0.065 mm	567	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-049	Natural Sample	Copper, Total	<0.065 mm	802	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-010	Natural Sample	Copper, Total	<0.065 mm	104	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Copper, Total	<0.065 mm	781	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-058	Natural Sample	Copper, Total	<0.065 mm	868	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-061	Natural Sample	Copper, Total	<0.065 mm	436	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-064	Natural Sample	Copper, Total	<0.065 mm	272	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-004	Natural Sample	Copper, Total	<0.065 mm	368	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Copper, Total	<0.065 mm	2780	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Copper, Total	<0.065 mm	846	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-022	Natural Sample	Copper, Total	<0.065 mm	1100	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-025	Natural Sample	Copper, Total	<0.065 mm	766	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Copper, Total	<0.065 mm	507	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Copper, Total	<0.065 mm	558	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Copper, Total	<0.065 mm	516	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Copper, Total	<0.065 mm	487	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-043	Natural Sample	Copper, Total	<0.065 mm	582	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-046	Natural Sample	Copper, Total	<0.065 mm	463	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Copper, Total	<0.065 mm	1560	7	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Copper, Total	<0.065 mm	135	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Copper, Total	<0.065 mm	739	10	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Copper, Total	<0.065 mm	607	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Copper, Total	<0.065 mm	724	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-064	Natural Sample	Copper, Total	<0.065 mm	674	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-031	Duplicate	Copper, Total	<0.065 mm	252	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-004	Natural Sample	Copper, Total	<0.065 mm	328	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Copper, Total	<0.065 mm	2230	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Copper, Total	<0.065 mm	877	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-022	Natural Sample	Copper, Total	<0.065 mm	1120	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-025	Natural Sample	Copper, Total	<0.065 mm	817	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Copper, Total	<0.065 mm	172	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Copper, Total	<0.065 mm	665	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Copper, Total	<0.065 mm	682	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Copper, Total	<0.065 mm	543	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Copper, Total	<0.065 mm	629	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-030	Duplicate	Copper, Total	0.065-1 mm	208	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-033	Duplicate	Copper, Total	0.065-1 mm	190	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-053	Duplicate	Copper, Total	0.065-1 mm	271	5	mg/kg - dry	SW6010B

SS-06G	15-May-15	H15050235-023	Duplicate	Copper, Total	0.065-1 mm	156	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-050	Duplicate	Copper, Total	0.065-1 mm	69	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-035	Duplicate	Copper, Total	0.065-1 mm	262	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-007	Natural Sample	Copper, Total	0.065-1 mm	47	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Copper, Total	0.065-1 mm	710	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Copper, Total	0.065-1 mm	168	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-021	Natural Sample	Copper, Total	0.065-1 mm	322	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-024	Natural Sample	Copper, Total	0.065-1 mm	405	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Copper, Total	0.065-1 mm	154	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Copper, Total	0.065-1 mm	200	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Copper, Total	0.065-1 mm	90	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Copper, Total	0.065-1 mm	24	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-045	Natural Sample	Copper, Total	0.065-1 mm	52	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-048	Natural Sample	Copper, Total	0.065-1 mm	54	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Copper, Total	0.065-1 mm	689	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Copper, Total	0.065-1 mm	24	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Copper, Total	0.065-1 mm	151	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Copper, Total	0.065-1 mm	156	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Copper, Total	0.065-1 mm	87	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-063	Natural Sample	Copper, Total	0.065-1 mm	1180	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-005	Natural Sample	Copper, Total	0.065-1 mm	53	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-008	Natural Sample	Copper, Total	0.065-1 mm	857	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-020	Natural Sample	Copper, Total	0.065-1 mm	171	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-026	Natural Sample	Copper, Total	0.065-1 mm	338	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-029	Natural Sample	Copper, Total	0.065-1 mm	148	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-032	Natural Sample	Copper, Total	0.065-1 mm	178	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-035	Natural Sample	Copper, Total	0.065-1 mm	69	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-038	Natural Sample	Copper, Total	0.065-1 mm	37	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-041	Natural Sample	Copper, Total	0.065-1 mm	29	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-044	Natural Sample	Copper, Total	0.065-1 mm	141	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-047	Natural Sample	Copper, Total	0.065-1 mm	71	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-050	Natural Sample	Copper, Total	0.065-1 mm	476	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-011	Natural Sample	Copper, Total	0.065-1 mm	41	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-056	Natural Sample	Copper, Total	0.065-1 mm	204	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-059	Natural Sample	Copper, Total	0.065-1 mm	163	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-062	Natural Sample	Copper, Total	0.065-1 mm	83	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-065	Natural Sample	Copper, Total	0.065-1 mm	56	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-005	Natural Sample	Copper, Total	0.065-1 mm	45	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Copper, Total	0.065-1 mm	1430	5	mg/kg - dry	SW6010B

SS-06G	09-Sep-15	H15090206-020	Natural Sample	Copper, Total	0.065-1 mm	104	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-023	Natural Sample	Copper, Total	0.065-1 mm	163	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-026	Natural Sample	Copper, Total	0.065-1 mm	153	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Copper, Total	0.065-1 mm	114	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Copper, Total	0.065-1 mm	89	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Copper, Total	0.065-1 mm	44	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Copper, Total	0.065-1 mm	28	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-044	Natural Sample	Copper, Total	0.065-1 mm	89	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-047	Natural Sample	Copper, Total	0.065-1 mm	44	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Copper, Total	0.065-1 mm	308	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Copper, Total	0.065-1 mm	27	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Copper, Total	0.065-1 mm	168	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Copper, Total	0.065-1 mm	126	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Copper, Total	0.065-1 mm	76	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-065	Natural Sample	Copper, Total	0.065-1 mm	56	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-032	Duplicate	Copper, Total	0.065-1 mm	79	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-005	Natural Sample	Copper, Total	0.065-1 mm	37	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Copper, Total	0.065-1 mm	797	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Copper, Total	0.065-1 mm	132	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-023	Natural Sample	Copper, Total	0.065-1 mm	157	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-026	Natural Sample	Copper, Total	0.065-1 mm	160	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Copper, Total	0.065-1 mm	54	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Copper, Total	0.065-1 mm	167	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Copper, Total	0.065-1 mm	96	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Copper, Total	0.065-1 mm	60	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Copper, Total	0.065-1 mm	105	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-031	Duplicate	Copper, Total	1-2 mm	53	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-034	Duplicate	Copper, Total	1-2 mm	97	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-054	Duplicate	Copper, Total	1-2 mm	229	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-024	Duplicate	Copper, Total	1-2 mm	99	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-051	Duplicate	Copper, Total	1-2 mm	404	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-036	Duplicate	Copper, Total	1-2 mm	27	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-008	Natural Sample	Copper, Total	1-2 mm	21	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Copper, Total	1-2 mm	536	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Copper, Total	1-2 mm	81	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-022	Natural Sample	Copper, Total	1-2 mm	57	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-025	Natural Sample	Copper, Total	1-2 mm	98	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Copper, Total	1-2 mm	91	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Copper, Total	1-2 mm	43	5	mg/kg - dry	SW6010B

SS-11C	27-Mar-15	H15030394-040	Natural Sample	Copper, Total	1-2 mm	37	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Copper, Total	1-2 mm	12	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-046	Natural Sample	Copper, Total	1-2 mm	18	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-049	Natural Sample	Copper, Total	1-2 mm	26	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Copper, Total	1-2 mm	294	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Copper, Total	1-2 mm	26	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Copper, Total	1-2 mm	112	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Copper, Total	1-2 mm	65	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Copper, Total	1-2 mm	101	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-064	Natural Sample	Copper, Total	1-2 mm	479	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-006	Natural Sample	Copper, Total	1-2 mm	31	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-009	Natural Sample	Copper, Total	1-2 mm	360	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-021	Natural Sample	Copper, Total	1-2 mm	93	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-027	Natural Sample	Copper, Total	1-2 mm	199	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-030	Natural Sample	Copper, Total	1-2 mm	276	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-033	Natural Sample	Copper, Total	1-2 mm	108	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-036	Natural Sample	Copper, Total	1-2 mm	24	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-039	Natural Sample	Copper, Total	1-2 mm	25	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-042	Natural Sample	Copper, Total	1-2 mm	19	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-045	Natural Sample	Copper, Total	1-2 mm	30	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-048	Natural Sample	Copper, Total	1-2 mm	27	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-051	Natural Sample	Copper, Total	1-2 mm	427	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-012	Natural Sample	Copper, Total	1-2 mm	55	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Copper, Total	1-2 mm	214	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-060	Natural Sample	Copper, Total	1-2 mm	108	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-063	Natural Sample	Copper, Total	1-2 mm	122	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-066	Natural Sample	Copper, Total	1-2 mm	43	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-006	Natural Sample	Copper, Total	1-2 mm	25	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Copper, Total	1-2 mm	1630	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Copper, Total	1-2 mm	95	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-024	Natural Sample	Copper, Total	1-2 mm	83	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-027	Natural Sample	Copper, Total	1-2 mm	81	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Copper, Total	1-2 mm	52	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Copper, Total	1-2 mm	28	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Copper, Total	1-2 mm	22	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Copper, Total	1-2 mm	22	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-045	Natural Sample	Copper, Total	1-2 mm	17	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-048	Natural Sample	Copper, Total	1-2 mm	25	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Copper, Total	1-2 mm	199	5	mg/kg - dry	SW6010B

SS-15G	08-Sep-15	H15090199-012	Natural Sample	Copper, Total	1-2 mm	13	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Copper, Total	1-2 mm	71	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Copper, Total	1-2 mm	110	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Copper, Total	1-2 mm	80	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-066	Natural Sample	Copper, Total	1-2 mm	48	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-033	Duplicate	Copper, Total	1-2 mm	37	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-006	Natural Sample	Copper, Total	1-2 mm	19	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Copper, Total	1-2 mm	334	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Copper, Total	1-2 mm	459	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-024	Natural Sample	Copper, Total	1-2 mm	105	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-027	Natural Sample	Copper, Total	1-2 mm	118	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Copper, Total	1-2 mm	27	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Copper, Total	1-2 mm	113	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Copper, Total	1-2 mm	18	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Copper, Total	1-2 mm	22	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Copper, Total	1-2 mm	129	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-029	Duplicate	Iron, Total	<0.065 mm	23000	7	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-032	Duplicate	Iron, Total	<0.065 mm	28400	9	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-052	Duplicate	Iron, Total	<0.065 mm	27000	10	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-022	Duplicate	Iron, Total	<0.065 mm	33100	10	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-049	Duplicate	Iron, Total	<0.065 mm	20900	8	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-034	Duplicate	Iron, Total	<0.065 mm	27100	10	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-006	Natural Sample	Iron, Total	<0.065 mm	32400	6	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Iron, Total	<0.065 mm	42700	6	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Iron, Total	<0.065 mm	28000	8	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-020	Natural Sample	Iron, Total	<0.065 mm	26800	7	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-023	Natural Sample	Iron, Total	<0.065 mm	30100	9	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Iron, Total	<0.065 mm	29000	7	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Iron, Total	<0.065 mm	28000	8	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Iron, Total	<0.065 mm	24000	9	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Iron, Total	<0.065 mm	23500	8	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-044	Natural Sample	Iron, Total	<0.065 mm	25200	10	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-047	Natural Sample	Iron, Total	<0.065 mm	24700	9	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Iron, Total	<0.065 mm	38500	7	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Iron, Total	<0.065 mm	22700	8	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Iron, Total	<0.065 mm	32900	10	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Iron, Total	<0.065 mm	34000	6	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Iron, Total	<0.065 mm	40000	7	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-062	Natural Sample	Iron, Total	<0.065 mm	47900	5	mg/kg - dry	SW6010B

SS-01	15-May-15	H15050234-004	Natural Sample	Iron, Total	<0.065 mm	32800	9	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-007	Natural Sample	Iron, Total	<0.065 mm	45200	10	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-019	Natural Sample	Iron, Total	<0.065 mm	35500	10	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-025	Natural Sample	Iron, Total	<0.065 mm	29400	10	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-028	Natural Sample	Iron, Total	<0.065 mm	35700	20	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-031	Natural Sample	Iron, Total	<0.065 mm	24900	10	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-034	Natural Sample	Iron, Total	<0.065 mm	32200	10	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-037	Natural Sample	Iron, Total	<0.065 mm	24500	10	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-040	Natural Sample	Iron, Total	<0.065 mm	34100	10	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-043	Natural Sample	Iron, Total	<0.065 mm	25600	10	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-046	Natural Sample	Iron, Total	<0.065 mm	24100	10	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-049	Natural Sample	Iron, Total	<0.065 mm	23800	10	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-010	Natural Sample	Iron, Total	<0.065 mm	23400	10	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Iron, Total	<0.065 mm	26700	10	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-058	Natural Sample	Iron, Total	<0.065 mm	44100	10	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-061	Natural Sample	Iron, Total	<0.065 mm	29000	7	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-064	Natural Sample	Iron, Total	<0.065 mm	30500	6	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-004	Natural Sample	Iron, Total	<0.065 mm	35100	7	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Iron, Total	<0.065 mm	42000	6	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Iron, Total	<0.065 mm	35700	9	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-022	Natural Sample	Iron, Total	<0.065 mm	40900	10	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-025	Natural Sample	Iron, Total	<0.065 mm	34900	10	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Iron, Total	<0.065 mm	37900	10	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Iron, Total	<0.065 mm	30200	9	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Iron, Total	<0.065 mm	27200	8	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Iron, Total	<0.065 mm	27600	8	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-043	Natural Sample	Iron, Total	<0.065 mm	23100	10	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-046	Natural Sample	Iron, Total	<0.065 mm	28500	8	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Iron, Total	<0.065 mm	37700	20	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Iron, Total	<0.065 mm	26800	10	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Iron, Total	<0.065 mm	61800	20	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Iron, Total	<0.065 mm	38600	6	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Iron, Total	<0.065 mm	36300	7	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-064	Natural Sample	Iron, Total	<0.065 mm	37800	8	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-031	Duplicate	Iron, Total	<0.065 mm	36600	9	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-004	Natural Sample	Iron, Total	<0.065 mm	34900	7	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Iron, Total	<0.065 mm	42700	6	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Iron, Total	<0.065 mm	34800	7	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-022	Natural Sample	Iron, Total	<0.065 mm	42800	9	mg/kg - dry	SW6010B

SS-08	04-Dec-15	H15120093-025	Natural Sample	Iron, Total	<0.065 mm	29300	9	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Iron, Total	<0.065 mm	50900	9	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Iron, Total	<0.065 mm	23700	10	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Iron, Total	<0.065 mm	27200	10	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Iron, Total	<0.065 mm	26000	8	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Iron, Total	<0.065 mm	31100	7	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-030	Duplicate	Iron, Total	0.065-1 mm	21700	6	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-033	Duplicate	Iron, Total	0.065-1 mm	18600	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-053	Duplicate	Iron, Total	0.065-1 mm	19600	7	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-023	Duplicate	Iron, Total	0.065-1 mm	15400	6	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-050	Duplicate	Iron, Total	0.065-1 mm	13100	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-035	Duplicate	Iron, Total	0.065-1 mm	22900	8	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-007	Natural Sample	Iron, Total	0.065-1 mm	16500	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Iron, Total	0.065-1 mm	46000	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Iron, Total	0.065-1 mm	13100	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-021	Natural Sample	Iron, Total	0.065-1 mm	33400	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-024	Natural Sample	Iron, Total	0.065-1 mm	11400	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Iron, Total	0.065-1 mm	19900	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Iron, Total	0.065-1 mm	22200	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Iron, Total	0.065-1 mm	36500	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Iron, Total	0.065-1 mm	7230	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-045	Natural Sample	Iron, Total	0.065-1 mm	8830	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-048	Natural Sample	Iron, Total	0.065-1 mm	20500	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Iron, Total	0.065-1 mm	54700	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Iron, Total	0.065-1 mm	14500	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Iron, Total	0.065-1 mm	18800	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Iron, Total	0.065-1 mm	34700	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Iron, Total	0.065-1 mm	9790	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-063	Natural Sample	Iron, Total	0.065-1 mm	19200	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-005	Natural Sample	Iron, Total	0.065-1 mm	14000	6	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-008	Natural Sample	Iron, Total	0.065-1 mm	92600	8	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-020	Natural Sample	Iron, Total	0.065-1 mm	14900	7	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-026	Natural Sample	Iron, Total	0.065-1 mm	37700	7	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-029	Natural Sample	Iron, Total	0.065-1 mm	9200	6	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-032	Natural Sample	Iron, Total	0.065-1 mm	24800	9	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-035	Natural Sample	Iron, Total	0.065-1 mm	32400	7	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-038	Natural Sample	Iron, Total	0.065-1 mm	12900	7	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-041	Natural Sample	Iron, Total	0.065-1 mm	10000	6	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-044	Natural Sample	Iron, Total	0.065-1 mm	13600	8	mg/kg - dry	SW6010B

SS-14	14-May-15	H15050235-047	Natural Sample	Iron, Total	0.065-1 mm	14600	7	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-050	Natural Sample	Iron, Total	0.065-1 mm	26200	7	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-011	Natural Sample	Iron, Total	0.065-1 mm	19800	7	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-056	Natural Sample	Iron, Total	0.065-1 mm	17000	7	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-059	Natural Sample	Iron, Total	0.065-1 mm	30000	7	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-062	Natural Sample	Iron, Total	0.065-1 mm	15200	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-065	Natural Sample	Iron, Total	0.065-1 mm	10600	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-005	Natural Sample	Iron, Total	0.065-1 mm	16000	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Iron, Total	0.065-1 mm	179000	520	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Iron, Total	0.065-1 mm	8050	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-023	Natural Sample	Iron, Total	0.065-1 mm	13000	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-026	Natural Sample	Iron, Total	0.065-1 mm	10600	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Iron, Total	0.065-1 mm	23200	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Iron, Total	0.065-1 mm	17100	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Iron, Total	0.065-1 mm	33500	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Iron, Total	0.065-1 mm	6250	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-044	Natural Sample	Iron, Total	0.065-1 mm	12400	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-047	Natural Sample	Iron, Total	0.065-1 mm	14500	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Iron, Total	0.065-1 mm	15400	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Iron, Total	0.065-1 mm	14800	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Iron, Total	0.065-1 mm	43800	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Iron, Total	0.065-1 mm	19400	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Iron, Total	0.065-1 mm	19700	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-065	Natural Sample	Iron, Total	0.065-1 mm	5680	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-032	Duplicate	Iron, Total	0.065-1 mm	21600	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-005	Natural Sample	Iron, Total	0.065-1 mm	10200	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Iron, Total	0.065-1 mm	60600	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Iron, Total	0.065-1 mm	10400	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-023	Natural Sample	Iron, Total	0.065-1 mm	21400	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-026	Natural Sample	Iron, Total	0.065-1 mm	8580	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Iron, Total	0.065-1 mm	29800	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Iron, Total	0.065-1 mm	19200	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Iron, Total	0.065-1 mm	17900	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Iron, Total	0.065-1 mm	10500	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Iron, Total	0.065-1 mm	16900	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-031	Duplicate	Iron, Total	1-2 mm	13000	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-034	Duplicate	Iron, Total	1-2 mm	19000	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-054	Duplicate	Iron, Total	1-2 mm	13500	6	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-024	Duplicate	Iron, Total	1-2 mm	8360	5	mg/kg - dry	SW6010B

SS-14	08-Sep-15	H15090206-051	Duplicate	Iron, Total	1-2 mm	8240	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-036	Duplicate	Iron, Total	1-2 mm	6880	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-008	Natural Sample	Iron, Total	1-2 mm	5230	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Iron, Total	1-2 mm	15600	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Iron, Total	1-2 mm	8250	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-022	Natural Sample	Iron, Total	1-2 mm	6000	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-025	Natural Sample	Iron, Total	1-2 mm	10300	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Iron, Total	1-2 mm	22300	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Iron, Total	1-2 mm	6670	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Iron, Total	1-2 mm	10000	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Iron, Total	1-2 mm	5890	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-046	Natural Sample	Iron, Total	1-2 mm	7210	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-049	Natural Sample	Iron, Total	1-2 mm	6160	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Iron, Total	1-2 mm	11900	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Iron, Total	1-2 mm	11600	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Iron, Total	1-2 mm	12900	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Iron, Total	1-2 mm	9090	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Iron, Total	1-2 mm	9020	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-064	Natural Sample	Iron, Total	1-2 mm	7380	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-006	Natural Sample	Iron, Total	1-2 mm	6040	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-009	Natural Sample	Iron, Total	1-2 mm	14100	6	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-021	Natural Sample	Iron, Total	1-2 mm	6960	6	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-027	Natural Sample	Iron, Total	1-2 mm	11900	6	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-030	Natural Sample	Iron, Total	1-2 mm	8420	6	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-033	Natural Sample	Iron, Total	1-2 mm	25200	9	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-036	Natural Sample	Iron, Total	1-2 mm	7660	6	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-039	Natural Sample	Iron, Total	1-2 mm	4970	6	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-042	Natural Sample	Iron, Total	1-2 mm	6470	6	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-045	Natural Sample	Iron, Total	1-2 mm	7940	7	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-048	Natural Sample	Iron, Total	1-2 mm	7310	7	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-051	Natural Sample	Iron, Total	1-2 mm	16700	6	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-012	Natural Sample	Iron, Total	1-2 mm	20200	8	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Iron, Total	1-2 mm	19100	6	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-060	Natural Sample	Iron, Total	1-2 mm	10700	6	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-063	Natural Sample	Iron, Total	1-2 mm	12200	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-066	Natural Sample	Iron, Total	1-2 mm	7840	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-006	Natural Sample	Iron, Total	1-2 mm	5790	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Iron, Total	1-2 mm	14500	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Iron, Total	1-2 mm	8070	5	mg/kg - dry	SW6010B

SS-07	09-Sep-15	H15090206-024	Natural Sample	Iron, Total	1-2 mm	7350	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-027	Natural Sample	Iron, Total	1-2 mm	6390	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Iron, Total	1-2 mm	10600	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Iron, Total	1-2 mm	9640	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Iron, Total	1-2 mm	7230	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Iron, Total	1-2 mm	6710	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-045	Natural Sample	Iron, Total	1-2 mm	7900	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-048	Natural Sample	Iron, Total	1-2 mm	6360	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Iron, Total	1-2 mm	11100	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Iron, Total	1-2 mm	11900	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Iron, Total	1-2 mm	14100	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Iron, Total	1-2 mm	11500	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Iron, Total	1-2 mm	7990	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-066	Natural Sample	Iron, Total	1-2 mm	5650	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-033	Duplicate	Iron, Total	1-2 mm	10900	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-006	Natural Sample	Iron, Total	1-2 mm	4910	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Iron, Total	1-2 mm	15100	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Iron, Total	1-2 mm	8460	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-024	Natural Sample	Iron, Total	1-2 mm	9410	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-027	Natural Sample	Iron, Total	1-2 mm	5740	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Iron, Total	1-2 mm	8100	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Iron, Total	1-2 mm	5970	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Iron, Total	1-2 mm	5710	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Iron, Total	1-2 mm	8420	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Iron, Total	1-2 mm	9350	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-029	Duplicate	Lead, Total	<0.065 mm	200	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-032	Duplicate	Lead, Total	<0.065 mm	368	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-052	Duplicate	Lead, Total	<0.065 mm	287	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-022	Duplicate	Lead, Total	<0.065 mm	326	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-049	Duplicate	Lead, Total	<0.065 mm	146	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-034	Duplicate	Lead, Total	<0.065 mm	179	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-006	Natural Sample	Lead, Total	<0.065 mm	198	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Lead, Total	<0.065 mm	743	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Lead, Total	<0.065 mm	360	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-020	Natural Sample	Lead, Total	<0.065 mm	401	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-023	Natural Sample	Lead, Total	<0.065 mm	365	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Lead, Total	<0.065 mm	234	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Lead, Total	<0.065 mm	246	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Lead, Total	<0.065 mm	212	5	mg/kg - dry	SW6020

SS-11D	27-Mar-15	H15030394-041	Natural Sample	Lead, Total	<0.065 mm	158	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-044	Natural Sample	Lead, Total	<0.065 mm	133	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-047	Natural Sample	Lead, Total	<0.065 mm	181	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Lead, Total	<0.065 mm	1140	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Lead, Total	<0.065 mm	134	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Lead, Total	<0.065 mm	475	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Lead, Total	<0.065 mm	379	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Lead, Total	<0.065 mm	254	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-062	Natural Sample	Lead, Total	<0.065 mm	501	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-004	Natural Sample	Lead, Total	<0.065 mm	149	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-007	Natural Sample	Lead, Total	<0.065 mm	752	7	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-019	Natural Sample	Lead, Total	<0.065 mm	319	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-025	Natural Sample	Lead, Total	<0.065 mm	321	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-028	Natural Sample	Lead, Total	<0.065 mm	450	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-031	Natural Sample	Lead, Total	<0.065 mm	232	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-034	Natural Sample	Lead, Total	<0.065 mm	207	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-037	Natural Sample	Lead, Total	<0.065 mm	203	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-040	Natural Sample	Lead, Total	<0.065 mm	176	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-043	Natural Sample	Lead, Total	<0.065 mm	180	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-046	Natural Sample	Lead, Total	<0.065 mm	146	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-049	Natural Sample	Lead, Total	<0.065 mm	230	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-010	Natural Sample	Lead, Total	<0.065 mm	67	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Lead, Total	<0.065 mm	236	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-058	Natural Sample	Lead, Total	<0.065 mm	426	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-061	Natural Sample	Lead, Total	<0.065 mm	215	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-064	Natural Sample	Lead, Total	<0.065 mm	134	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-004	Natural Sample	Lead, Total	<0.065 mm	207	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Lead, Total	<0.065 mm	647	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Lead, Total	<0.065 mm	897	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-022	Natural Sample	Lead, Total	<0.065 mm	483	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-025	Natural Sample	Lead, Total	<0.065 mm	398	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Lead, Total	<0.065 mm	175	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Lead, Total	<0.065 mm	186	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Lead, Total	<0.065 mm	191	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Lead, Total	<0.065 mm	150	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-043	Natural Sample	Lead, Total	<0.065 mm	150	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-046	Natural Sample	Lead, Total	<0.065 mm	241	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Lead, Total	<0.065 mm	634	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Lead, Total	<0.065 mm	162	5	mg/kg - dry	SW6020

SS-15B	08-Sep-15	H15090206-055	Natural Sample	Lead, Total	<0.065 mm	322	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Lead, Total	<0.065 mm	346	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Lead, Total	<0.065 mm	268	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-064	Natural Sample	Lead, Total	<0.065 mm	274	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-031	Duplicate	Lead, Total	<0.065 mm	118	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-004	Natural Sample	Lead, Total	<0.065 mm	134	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Lead, Total	<0.065 mm	585	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Lead, Total	<0.065 mm	437	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-022	Natural Sample	Lead, Total	<0.065 mm	542	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-025	Natural Sample	Lead, Total	<0.065 mm	467	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Lead, Total	<0.065 mm	129	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Lead, Total	<0.065 mm	182	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Lead, Total	<0.065 mm	186	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Lead, Total	<0.065 mm	135	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Lead, Total	<0.065 mm	175	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-030	Duplicate	Lead, Total	0.065-1 mm	100	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-033	Duplicate	Lead, Total	0.065-1 mm	114	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-053	Duplicate	Lead, Total	0.065-1 mm	129	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-023	Duplicate	Lead, Total	0.065-1 mm	78	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-050	Duplicate	Lead, Total	0.065-1 mm	15	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-035	Duplicate	Lead, Total	0.065-1 mm	89	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-007	Natural Sample	Lead, Total	0.065-1 mm	30	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Lead, Total	0.065-1 mm	193	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Lead, Total	0.065-1 mm	92	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-021	Natural Sample	Lead, Total	0.065-1 mm	87	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-024	Natural Sample	Lead, Total	0.065-1 mm	120	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Lead, Total	0.065-1 mm	86	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Lead, Total	0.065-1 mm	58	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Lead, Total	0.065-1 mm	25	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Lead, Total	0.065-1 mm	11	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-045	Natural Sample	Lead, Total	0.065-1 mm	13	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-048	Natural Sample	Lead, Total	0.065-1 mm	21	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Lead, Total	0.065-1 mm	219	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Lead, Total	0.065-1 mm	13	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Lead, Total	0.065-1 mm	67	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Lead, Total	0.065-1 mm	91	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Lead, Total	0.065-1 mm	60	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-063	Natural Sample	Lead, Total	0.065-1 mm	65	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-005	Natural Sample	Lead, Total	0.065-1 mm	23	5	mg/kg - dry	SW6020

SS-05A	15-May-15	H15050234-008	Natural Sample	Lead, Total	0.065-1 mm	166	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-020	Natural Sample	Lead, Total	0.065-1 mm	91	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-026	Natural Sample	Lead, Total	0.065-1 mm	99	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-029	Natural Sample	Lead, Total	0.065-1 mm	40	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-032	Natural Sample	Lead, Total	0.065-1 mm	85	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-035	Natural Sample	Lead, Total	0.065-1 mm	30	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-038	Natural Sample	Lead, Total	0.065-1 mm	13	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-041	Natural Sample	Lead, Total	0.065-1 mm	10	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-044	Natural Sample	Lead, Total	0.065-1 mm	32	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-047	Natural Sample	Lead, Total	0.065-1 mm	20	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-050	Natural Sample	Lead, Total	0.065-1 mm	168	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-011	Natural Sample	Lead, Total	0.065-1 mm	14	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-056	Natural Sample	Lead, Total	0.065-1 mm	98	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-059	Natural Sample	Lead, Total	0.065-1 mm	79	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-062	Natural Sample	Lead, Total	0.065-1 mm	48	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-065	Natural Sample	Lead, Total	0.065-1 mm	39	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-005	Natural Sample	Lead, Total	0.065-1 mm	23	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Lead, Total	0.065-1 mm	361	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Lead, Total	0.065-1 mm	47	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-023	Natural Sample	Lead, Total	0.065-1 mm	58	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-026	Natural Sample	Lead, Total	0.065-1 mm	45	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Lead, Total	0.065-1 mm	32	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Lead, Total	0.065-1 mm	29	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Lead, Total	0.065-1 mm	20	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Lead, Total	0.065-1 mm	21	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-044	Natural Sample	Lead, Total	0.065-1 mm	26	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-047	Natural Sample	Lead, Total	0.065-1 mm	42	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Lead, Total	0.065-1 mm	127	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Lead, Total	0.065-1 mm	9	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Lead, Total	0.065-1 mm	49	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Lead, Total	0.065-1 mm	61	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Lead, Total	0.065-1 mm	35	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-065	Natural Sample	Lead, Total	0.065-1 mm	30	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-032	Duplicate	Lead, Total	0.065-1 mm	15	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-005	Natural Sample	Lead, Total	0.065-1 mm	13	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Lead, Total	0.065-1 mm	186	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Lead, Total	0.065-1 mm	72	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-023	Natural Sample	Lead, Total	0.065-1 mm	71	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-026	Natural Sample	Lead, Total	0.065-1 mm	51	5	mg/kg - dry	SW6020

SS-10A	04-Dec-15	H15120093-029	Natural Sample	Lead, Total	0.065-1 mm	29	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Lead, Total	0.065-1 mm	39	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Lead, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Lead, Total	0.065-1 mm	18	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Lead, Total	0.065-1 mm	42	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-031	Duplicate	Lead, Total	1-2 mm	34	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-034	Duplicate	Lead, Total	1-2 mm	37	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-054	Duplicate	Lead, Total	1-2 mm	58	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-024	Duplicate	Lead, Total	1-2 mm	37	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-051	Duplicate	Lead, Total	1-2 mm	374	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-036	Duplicate	Lead, Total	1-2 mm	9	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-008	Natural Sample	Lead, Total	1-2 mm	15	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Lead, Total	1-2 mm	86	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Lead, Total	1-2 mm	41	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-022	Natural Sample	Lead, Total	1-2 mm	63	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-025	Natural Sample	Lead, Total	1-2 mm	48	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Lead, Total	1-2 mm	83	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Lead, Total	1-2 mm	16	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Lead, Total	1-2 mm	13	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Lead, Total	1-2 mm	8	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-046	Natural Sample	Lead, Total	1-2 mm	8	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-049	Natural Sample	Lead, Total	1-2 mm	13	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Lead, Total	1-2 mm	68	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Lead, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Lead, Total	1-2 mm	36	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Lead, Total	1-2 mm	25	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Lead, Total	1-2 mm	55	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-064	Natural Sample	Lead, Total	1-2 mm	55	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-006	Natural Sample	Lead, Total	1-2 mm	10	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-009	Natural Sample	Lead, Total	1-2 mm	90	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-021	Natural Sample	Lead, Total	1-2 mm	44	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-027	Natural Sample	Lead, Total	1-2 mm	40	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-030	Natural Sample	Lead, Total	1-2 mm	52	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-033	Natural Sample	Lead, Total	1-2 mm	54	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-036	Natural Sample	Lead, Total	1-2 mm	8	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-039	Natural Sample	Lead, Total	1-2 mm	41	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-042	Natural Sample	Lead, Total	1-2 mm	8	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-045	Natural Sample	Lead, Total	1-2 mm	13	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-048	Natural Sample	Lead, Total	1-2 mm	13	5	mg/kg - dry	SW6020

SS-15A	14-May-15	H15050235-051	Natural Sample	Lead, Total	1-2 mm	134	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-012	Natural Sample	Lead, Total	1-2 mm	14	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Lead, Total	1-2 mm	59	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-060	Natural Sample	Lead, Total	1-2 mm	42	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-063	Natural Sample	Lead, Total	1-2 mm	51	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-066	Natural Sample	Lead, Total	1-2 mm	17	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-006	Natural Sample	Lead, Total	1-2 mm	14	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Lead, Total	1-2 mm	114	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Lead, Total	1-2 mm	41	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-024	Natural Sample	Lead, Total	1-2 mm	86	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-027	Natural Sample	Lead, Total	1-2 mm	31	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Lead, Total	1-2 mm	10	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Lead, Total	1-2 mm	12	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Lead, Total	1-2 mm	8	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Lead, Total	1-2 mm	15	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-045	Natural Sample	Lead, Total	1-2 mm	9	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-048	Natural Sample	Lead, Total	1-2 mm	18	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Lead, Total	1-2 mm	97	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Lead, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Lead, Total	1-2 mm	41	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Lead, Total	1-2 mm	41	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Lead, Total	1-2 mm	22	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-066	Natural Sample	Lead, Total	1-2 mm	16	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-033	Duplicate	Lead, Total	1-2 mm	8	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-006	Natural Sample	Lead, Total	1-2 mm	7	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Lead, Total	1-2 mm	69	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Lead, Total	1-2 mm	71	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-024	Natural Sample	Lead, Total	1-2 mm	31	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-027	Natural Sample	Lead, Total	1-2 mm	27	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Lead, Total	1-2 mm	13	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Lead, Total	1-2 mm	28	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Lead, Total	1-2 mm	7	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Lead, Total	1-2 mm	15	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Lead, Total	1-2 mm	38	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-029	Duplicate	Manganese, Total	<0.065 mm	2160	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-032	Duplicate	Manganese, Total	<0.065 mm	2690	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-052	Duplicate	Manganese, Total	<0.065 mm	3120	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-022	Duplicate	Manganese, Total	<0.065 mm	5610	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-049	Duplicate	Manganese, Total	<0.065 mm	2810	5	mg/kg - dry	SW6010B

SS-10B	04-Dec-15	H15120093-034	Duplicate	Manganese, Total	<0.065 mm	2490	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-006	Natural Sample	Manganese, Total	<0.065 mm	866	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Manganese, Total	<0.065 mm	2170	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Manganese, Total	<0.065 mm	7820	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-020	Natural Sample	Manganese, Total	<0.065 mm	982	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-023	Natural Sample	Manganese, Total	<0.065 mm	1660	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Manganese, Total	<0.065 mm	2370	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Manganese, Total	<0.065 mm	1670	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Manganese, Total	<0.065 mm	2250	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Manganese, Total	<0.065 mm	5340	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-044	Natural Sample	Manganese, Total	<0.065 mm	2460	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-047	Natural Sample	Manganese, Total	<0.065 mm	3290	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Manganese, Total	<0.065 mm	2570	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Manganese, Total	<0.065 mm	704	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Manganese, Total	<0.065 mm	3540	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Manganese, Total	<0.065 mm	3540	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Manganese, Total	<0.065 mm	9190	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-062	Natural Sample	Manganese, Total	<0.065 mm	1160	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-004	Natural Sample	Manganese, Total	<0.065 mm	701	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-007	Natural Sample	Manganese, Total	<0.065 mm	1940	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-019	Natural Sample	Manganese, Total	<0.065 mm	5020	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-025	Natural Sample	Manganese, Total	<0.065 mm	2150	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-028	Natural Sample	Manganese, Total	<0.065 mm	1690	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-031	Natural Sample	Manganese, Total	<0.065 mm	2190	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-034	Natural Sample	Manganese, Total	<0.065 mm	2100	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-037	Natural Sample	Manganese, Total	<0.065 mm	4320	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-040	Natural Sample	Manganese, Total	<0.065 mm	3990	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-043	Natural Sample	Manganese, Total	<0.065 mm	2070	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-046	Natural Sample	Manganese, Total	<0.065 mm	3430	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-049	Natural Sample	Manganese, Total	<0.065 mm	3080	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-010	Natural Sample	Manganese, Total	<0.065 mm	572	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Manganese, Total	<0.065 mm	2930	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-058	Natural Sample	Manganese, Total	<0.065 mm	4220	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-061	Natural Sample	Manganese, Total	<0.065 mm	1950	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-064	Natural Sample	Manganese, Total	<0.065 mm	4300	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-004	Natural Sample	Manganese, Total	<0.065 mm	874	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Manganese, Total	<0.065 mm	1930	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Manganese, Total	<0.065 mm	9750	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-022	Natural Sample	Manganese, Total	<0.065 mm	2390	5	mg/kg - dry	SW6010B

SS-08	09-Sep-15	H15090206-025	Natural Sample	Manganese, Total	<0.065 mm	1840	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Manganese, Total	<0.065 mm	1250	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Manganese, Total	<0.065 mm	2170	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Manganese, Total	<0.065 mm	3610	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Manganese, Total	<0.065 mm	3660	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-043	Natural Sample	Manganese, Total	<0.065 mm	2260	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-046	Natural Sample	Manganese, Total	<0.065 mm	2780	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Manganese, Total	<0.065 mm	6070	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Manganese, Total	<0.065 mm	817	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Manganese, Total	<0.065 mm	2610	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Manganese, Total	<0.065 mm	2570	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Manganese, Total	<0.065 mm	2110	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-064	Natural Sample	Manganese, Total	<0.065 mm	2930	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-031	Duplicate	Manganese, Total	<0.065 mm	1010	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-004	Natural Sample	Manganese, Total	<0.065 mm	836	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Manganese, Total	<0.065 mm	1670	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Manganese, Total	<0.065 mm	9130	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-022	Natural Sample	Manganese, Total	<0.065 mm	3820	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-025	Natural Sample	Manganese, Total	<0.065 mm	1600	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Manganese, Total	<0.065 mm	1420	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Manganese, Total	<0.065 mm	1720	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Manganese, Total	<0.065 mm	8900	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Manganese, Total	<0.065 mm	4710	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Manganese, Total	<0.065 mm	3680	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-030	Duplicate	Manganese, Total	0.065-1 mm	1320	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-033	Duplicate	Manganese, Total	0.065-1 mm	1220	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-053	Duplicate	Manganese, Total	0.065-1 mm	807	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-023	Duplicate	Manganese, Total	0.065-1 mm	1270	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-050	Duplicate	Manganese, Total	0.065-1 mm	421	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-035	Duplicate	Manganese, Total	0.065-1 mm	1020	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-007	Natural Sample	Manganese, Total	0.065-1 mm	183	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Manganese, Total	0.065-1 mm	684	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Manganese, Total	0.065-1 mm	1300	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-021	Natural Sample	Manganese, Total	0.065-1 mm	412	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-024	Natural Sample	Manganese, Total	0.065-1 mm	372	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Manganese, Total	0.065-1 mm	1170	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Manganese, Total	0.065-1 mm	619	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Manganese, Total	0.065-1 mm	433	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Manganese, Total	0.065-1 mm	372	5	mg/kg - dry	SW6010B

SS-13	26-Mar-15	H15030394-045	Natural Sample	Manganese, Total	0.065-1 mm	353	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-048	Natural Sample	Manganese, Total	0.065-1 mm	468	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Manganese, Total	0.065-1 mm	705	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Manganese, Total	0.065-1 mm	207	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Manganese, Total	0.065-1 mm	510	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Manganese, Total	0.065-1 mm	709	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Manganese, Total	0.065-1 mm	877	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-063	Natural Sample	Manganese, Total	0.065-1 mm	482	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-005	Natural Sample	Manganese, Total	0.065-1 mm	188	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-008	Natural Sample	Manganese, Total	0.065-1 mm	793	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-020	Natural Sample	Manganese, Total	0.065-1 mm	1110	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-026	Natural Sample	Manganese, Total	0.065-1 mm	647	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-029	Natural Sample	Manganese, Total	0.065-1 mm	496	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-032	Natural Sample	Manganese, Total	0.065-1 mm	1290	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-035	Natural Sample	Manganese, Total	0.065-1 mm	365	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-038	Natural Sample	Manganese, Total	0.065-1 mm	557	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-041	Natural Sample	Manganese, Total	0.065-1 mm	283	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-044	Natural Sample	Manganese, Total	0.065-1 mm	622	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-047	Natural Sample	Manganese, Total	0.065-1 mm	549	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-050	Natural Sample	Manganese, Total	0.065-1 mm	1100	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-011	Natural Sample	Manganese, Total	0.065-1 mm	273	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-056	Natural Sample	Manganese, Total	0.065-1 mm	985	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-059	Natural Sample	Manganese, Total	0.065-1 mm	633	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-062	Natural Sample	Manganese, Total	0.065-1 mm	356	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-065	Natural Sample	Manganese, Total	0.065-1 mm	527	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-005	Natural Sample	Manganese, Total	0.065-1 mm	181	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Manganese, Total	0.065-1 mm	1110	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Manganese, Total	0.065-1 mm	1370	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-023	Natural Sample	Manganese, Total	0.065-1 mm	373	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-026	Natural Sample	Manganese, Total	0.065-1 mm	233	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Manganese, Total	0.065-1 mm	369	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Manganese, Total	0.065-1 mm	392	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Manganese, Total	0.065-1 mm	545	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Manganese, Total	0.065-1 mm	591	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-044	Natural Sample	Manganese, Total	0.065-1 mm	511	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-047	Natural Sample	Manganese, Total	0.065-1 mm	741	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Manganese, Total	0.065-1 mm	546	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Manganese, Total	0.065-1 mm	134	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Manganese, Total	0.065-1 mm	1600	5	mg/kg - dry	SW6010B

SS-16B	08-Sep-15	H15090206-059	Natural Sample	Manganese, Total	0.065-1 mm	542	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Manganese, Total	0.065-1 mm	358	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-065	Natural Sample	Manganese, Total	0.065-1 mm	191	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-032	Duplicate	Manganese, Total	0.065-1 mm	267	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-005	Natural Sample	Manganese, Total	0.065-1 mm	149	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Manganese, Total	0.065-1 mm	965	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Manganese, Total	0.065-1 mm	1760	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-023	Natural Sample	Manganese, Total	0.065-1 mm	533	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-026	Natural Sample	Manganese, Total	0.065-1 mm	256	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Manganese, Total	0.065-1 mm	531	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Manganese, Total	0.065-1 mm	556	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Manganese, Total	0.065-1 mm	1210	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Manganese, Total	0.065-1 mm	912	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Manganese, Total	0.065-1 mm	854	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-031	Duplicate	Manganese, Total	1-2 mm	961	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-034	Duplicate	Manganese, Total	1-2 mm	1410	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-054	Duplicate	Manganese, Total	1-2 mm	430	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-024	Duplicate	Manganese, Total	1-2 mm	1000	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-051	Duplicate	Manganese, Total	1-2 mm	637	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-036	Duplicate	Manganese, Total	1-2 mm	420	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-008	Natural Sample	Manganese, Total	1-2 mm	113	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Manganese, Total	1-2 mm	266	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Manganese, Total	1-2 mm	1100	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-022	Natural Sample	Manganese, Total	1-2 mm	132	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-025	Natural Sample	Manganese, Total	1-2 mm	333	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Manganese, Total	1-2 mm	2160	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Manganese, Total	1-2 mm	271	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Manganese, Total	1-2 mm	275	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Manganese, Total	1-2 mm	385	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-046	Natural Sample	Manganese, Total	1-2 mm	285	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-049	Natural Sample	Manganese, Total	1-2 mm	384	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Manganese, Total	1-2 mm	1480	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Manganese, Total	1-2 mm	139	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Manganese, Total	1-2 mm	394	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Manganese, Total	1-2 mm	435	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Manganese, Total	1-2 mm	683	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-064	Natural Sample	Manganese, Total	1-2 mm	466	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-006	Natural Sample	Manganese, Total	1-2 mm	152	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-009	Natural Sample	Manganese, Total	1-2 mm	366	5	mg/kg - dry	SW6010B

SS-06G	15-May-15	H15050235-021	Natural Sample	Manganese, Total	1-2 mm	972	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-027	Natural Sample	Manganese, Total	1-2 mm	558	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-030	Natural Sample	Manganese, Total	1-2 mm	129	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-033	Natural Sample	Manganese, Total	1-2 mm	1870	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-036	Natural Sample	Manganese, Total	1-2 mm	313	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-039	Natural Sample	Manganese, Total	1-2 mm	864	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-042	Natural Sample	Manganese, Total	1-2 mm	448	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-045	Natural Sample	Manganese, Total	1-2 mm	402	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-048	Natural Sample	Manganese, Total	1-2 mm	538	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-051	Natural Sample	Manganese, Total	1-2 mm	457	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-012	Natural Sample	Manganese, Total	1-2 mm	324	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Manganese, Total	1-2 mm	1030	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-060	Natural Sample	Manganese, Total	1-2 mm	483	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-063	Natural Sample	Manganese, Total	1-2 mm	406	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-066	Natural Sample	Manganese, Total	1-2 mm	503	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-006	Natural Sample	Manganese, Total	1-2 mm	241	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Manganese, Total	1-2 mm	7940	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Manganese, Total	1-2 mm	1150	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-024	Natural Sample	Manganese, Total	1-2 mm	471	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-027	Natural Sample	Manganese, Total	1-2 mm	2270	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Manganese, Total	1-2 mm	325	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Manganese, Total	1-2 mm	444	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Manganese, Total	1-2 mm	492	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Manganese, Total	1-2 mm	741	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-045	Natural Sample	Manganese, Total	1-2 mm	393	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-048	Natural Sample	Manganese, Total	1-2 mm	376	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Manganese, Total	1-2 mm	867	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Manganese, Total	1-2 mm	136	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Manganese, Total	1-2 mm	288	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Manganese, Total	1-2 mm	405	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Manganese, Total	1-2 mm	446	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-066	Natural Sample	Manganese, Total	1-2 mm	218	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-033	Duplicate	Manganese, Total	1-2 mm	299	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-006	Natural Sample	Manganese, Total	1-2 mm	97	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Manganese, Total	1-2 mm	755	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Manganese, Total	1-2 mm	1790	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-024	Natural Sample	Manganese, Total	1-2 mm	402	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-027	Natural Sample	Manganese, Total	1-2 mm	173	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Manganese, Total	1-2 mm	423	5	mg/kg - dry	SW6010B

SS-10B	04-Dec-15	H15120093-033	Natural Sample	Manganese, Total	1-2 mm	510	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Manganese, Total	1-2 mm	814	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Manganese, Total	1-2 mm	1650	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Manganese, Total	1-2 mm	506	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-029	Duplicate	Mercury, Total	<0.065 mm	0.86	0.1	mg/kg - dry	SW7471B
SS-10A	27-Mar-15	H15030394-032	Duplicate	Mercury, Total	<0.065 mm	0.95	0.1	mg/kg - dry	SW7471B
SS-15A	14-May-15	H15050235-052	Duplicate	Mercury, Total	<0.065 mm	1	0.1	mg/kg - dry	SW7471B
SS-06G	15-May-15	H15050235-022	Duplicate	Mercury, Total	<0.065 mm	1	0.1	mg/kg - dry	SW7471B
SS-14	08-Sep-15	H15090206-049	Duplicate	Mercury, Total	<0.065 mm	0.54	0.1	mg/kg - dry	SW7471B
SS-10B	04-Dec-15	H15120093-034	Duplicate	Mercury, Total	<0.065 mm	0.85	0.1	mg/kg - dry	SW7471B
SS-01	27-Mar-15	H15030393-006	Natural Sample	Mercury, Total	<0.065 mm	0.13	0.1	mg/kg - dry	SW7471B
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Mercury, Total	<0.065 mm	0.9	0.1	mg/kg - dry	SW7471B
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Mercury, Total	<0.065 mm	1.1	0.1	mg/kg - dry	SW7471B
SS-07	27-Mar-15	H15030394-020	Natural Sample	Mercury, Total	<0.065 mm	0.99	0.1	mg/kg - dry	SW7471B
SS-08	27-Mar-15	H15030394-023	Natural Sample	Mercury, Total	<0.065 mm	2.1	0.1	mg/kg - dry	SW7471B
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Mercury, Total	<0.065 mm	0.87	0.1	mg/kg - dry	SW7471B
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Mercury, Total	<0.065 mm	0.83	0.1	mg/kg - dry	SW7471B
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Mercury, Total	<0.065 mm	0.68	0.1	mg/kg - dry	SW7471B
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Mercury, Total	<0.065 mm	0.49	0.1	mg/kg - dry	SW7471B
SS-13	26-Mar-15	H15030394-044	Natural Sample	Mercury, Total	<0.065 mm	1	0.1	mg/kg - dry	SW7471B
SS-14	26-Mar-15	H15030394-047	Natural Sample	Mercury, Total	<0.065 mm	0.62	0.1	mg/kg - dry	SW7471B
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Mercury, Total	<0.065 mm	6.2	0.1	mg/kg - dry	SW7471B
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Mercury, Total	<0.065 mm	0.18	0.1	mg/kg - dry	SW7471B
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Mercury, Total	<0.065 mm	2	0.17	mg/kg - dry	SW7471B
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Mercury, Total	<0.065 mm	1.3	0.1	mg/kg - dry	SW7471B
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Mercury, Total	<0.065 mm	1.2	0.1	mg/kg - dry	SW7471B
SS-19	26-Mar-15	H15030394-062	Natural Sample	Mercury, Total	<0.065 mm	1.8	0.1	mg/kg - dry	SW7471B
SS-01	15-May-15	H15050234-004	Natural Sample	Mercury, Total	<0.065 mm	0.14	0.1	mg/kg - dry	SW7471B
SS-05A	15-May-15	H15050234-007	Natural Sample	Mercury, Total	<0.065 mm	1.4	0.1	mg/kg - dry	SW7471B
SS-06G	15-May-15	H15050235-019	Natural Sample	Mercury, Total	<0.065 mm	0.6	0.1	mg/kg - dry	SW7471B
SS-07	15-May-15	H15050235-025	Natural Sample	Mercury, Total	<0.065 mm	0.88	0.1	mg/kg - dry	SW7471B
SS-08	15-May-15	H15050235-028	Natural Sample	Mercury, Total	<0.065 mm	2.3	0.1	mg/kg - dry	SW7471B
SS-10A	15-May-15	H15050235-031	Natural Sample	Mercury, Total	<0.065 mm	0.55	0.1	mg/kg - dry	SW7471B
SS-10B	15-May-15	H15050235-034	Natural Sample	Mercury, Total	<0.065 mm	0.75	0.1	mg/kg - dry	SW7471B
SS-11C	15-May-15	H15050235-037	Natural Sample	Mercury, Total	<0.065 mm	0.58	0.1	mg/kg - dry	SW7471B
SS-11D	15-May-15	H15050235-040	Natural Sample	Mercury, Total	<0.065 mm	0.47	0.1	mg/kg - dry	SW7471B
SS-13	14-May-15	H15050235-043	Natural Sample	Mercury, Total	<0.065 mm	0.85	0.1	mg/kg - dry	SW7471B
SS-14	14-May-15	H15050235-046	Natural Sample	Mercury, Total	<0.065 mm	0.59	0.1	mg/kg - dry	SW7471B
SS-15A	14-May-15	H15050235-049	Natural Sample	Mercury, Total	<0.065 mm	1.2	0.1	mg/kg - dry	SW7471B

SS-15G	14-May-15	H15050234-010	Natural Sample	Mercury, Total	<0.065 mm	0.19	0.1	mg/kg - dry	SW7471B
SS-15B	14-May-15	H15050235-057	Natural Sample	Mercury, Total	<0.065 mm	1	0.1	mg/kg - dry	SW7471B
SS-16B	14-May-15	H15050235-058	Natural Sample	Mercury, Total	<0.065 mm	1.8	0.1	mg/kg - dry	SW7471B
SS-17D	14-May-15	H15050235-061	Natural Sample	Mercury, Total	<0.065 mm	0.71	0.1	mg/kg - dry	SW7471B
SS-19	14-May-15	H15050235-064	Natural Sample	Mercury, Total	<0.065 mm	0.49	0.1	mg/kg - dry	SW7471B
SS-01	09-Sep-15	H15090199-004	Natural Sample	Mercury, Total	<0.065 mm	0.2	0.1	mg/kg - dry	SW7471B
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Mercury, Total	<0.065 mm	1.2	0.1	mg/kg - dry	SW7471B
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Mercury, Total	<0.065 mm	0.91	0.1	mg/kg - dry	SW7471B
SS-07	09-Sep-15	H15090206-022	Natural Sample	Mercury, Total	<0.065 mm	1.1	0.1	mg/kg - dry	SW7471B
SS-08	09-Sep-15	H15090206-025	Natural Sample	Mercury, Total	<0.065 mm	1.7	0.1	mg/kg - dry	SW7471B
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Mercury, Total	<0.065 mm	0.64	0.1	mg/kg - dry	SW7471B
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Mercury, Total	<0.065 mm	1.5	0.1	mg/kg - dry	SW7471B
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Mercury, Total	<0.065 mm	0.61	0.1	mg/kg - dry	SW7471B
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Mercury, Total	<0.065 mm	0.64	0.1	mg/kg - dry	SW7471B
SS-13	08-Sep-15	H15090206-043	Natural Sample	Mercury, Total	<0.065 mm	0.63	0.1	mg/kg - dry	SW7471B
SS-14	08-Sep-15	H15090206-046	Natural Sample	Mercury, Total	<0.065 mm	0.58	0.1	mg/kg - dry	SW7471B
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Mercury, Total	<0.065 mm	2.6	0.1	mg/kg - dry	SW7471B
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Mercury, Total	<0.065 mm	0.27	0.1	mg/kg - dry	SW7471B
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Mercury, Total	<0.065 mm	1.3	0.1	mg/kg - dry	SW7471B
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Mercury, Total	<0.065 mm	1.3	0.1	mg/kg - dry	SW7471B
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Mercury, Total	<0.065 mm	1.4	0.1	mg/kg - dry	SW7471B
SS-19	08-Sep-15	H15090206-064	Natural Sample	Mercury, Total	<0.065 mm	1.1	0.1	mg/kg - dry	SW7471B
SS-10A	09-Sep-15	H15090206-031	Duplicate	Mercury, Total	<0.065 mm	0.34	0.1	mg/kg - dry	SW7471B
SS-01	04-Dec-15	H15120092-004	Natural Sample	Mercury, Total	<0.065 mm	0.19	0.1	mg/kg - dry	SW7471B
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Mercury, Total	<0.065 mm	0.91	0.1	mg/kg - dry	SW7471B
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Mercury, Total	<0.065 mm	0.68	0.1	mg/kg - dry	SW7471B
SS-07	04-Dec-15	H15120093-022	Natural Sample	Mercury, Total	<0.065 mm	1.5	0.1	mg/kg - dry	SW7471B
SS-08	04-Dec-15	H15120093-025	Natural Sample	Mercury, Total	<0.065 mm	1.7	0.33	mg/kg - dry	SW7471B
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Mercury, Total	<0.065 mm	0.22	0.1	mg/kg - dry	SW7471B
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Mercury, Total	<0.065 mm	1	0.1	mg/kg - dry	SW7471B
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Mercury, Total	<0.065 mm	0.65	0.1	mg/kg - dry	SW7471B
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Mercury, Total	<0.065 mm	0.75	0.1	mg/kg - dry	SW7471B
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Mercury, Total	<0.065 mm	1.1	0.1	mg/kg - dry	SW7471B
SS-10A	27-Mar-15	H15030394-030	Duplicate	Mercury, Total	0.065-1 mm	0.29	0.1	mg/kg - dry	SW7471B
SS-10A	27-Mar-15	H15030394-033	Duplicate	Mercury, Total	0.065-1 mm	0.39	0.1	mg/kg - dry	SW7471B
SS-15A	14-May-15	H15050235-053	Duplicate	Mercury, Total	0.065-1 mm	0.35	0.1	mg/kg - dry	SW7471B
SS-06G	15-May-15	H15050235-023	Duplicate	Mercury, Total	0.065-1 mm	0.7	0.1	mg/kg - dry	SW7471B
SS-14	08-Sep-15	H15090206-050	Duplicate	Mercury, Total	0.065-1 mm	0.12	0.1	mg/kg - dry	SW7471B
SS-10B	04-Dec-15	H15120093-035	Duplicate	Mercury, Total	0.065-1 mm	0.32	0.1	mg/kg - dry	SW7471B

SS-01	27-Mar-15	H15030393-007	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Mercury, Total	0.065-1 mm	0.12	0.1	mg/kg - dry	SW7471B
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Mercury, Total	0.065-1 mm	0.15	0.1	mg/kg - dry	SW7471B
SS-07	27-Mar-15	H15030394-021	Natural Sample	Mercury, Total	0.065-1 mm	0.22	0.1	mg/kg - dry	SW7471B
SS-08	27-Mar-15	H15030394-024	Natural Sample	Mercury, Total	0.065-1 mm	0.55	0.1	mg/kg - dry	SW7471B
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Mercury, Total	0.065-1 mm	0.33	0.1	mg/kg - dry	SW7471B
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Mercury, Total	0.065-1 mm	0.17	0.1	mg/kg - dry	SW7471B
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Mercury, Total	0.065-1 mm	0.1	0.1	mg/kg - dry	SW7471B
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-13	26-Mar-15	H15030394-045	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-14	26-Mar-15	H15030394-048	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Mercury, Total	0.065-1 mm	0.7	0.1	mg/kg - dry	SW7471B
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Mercury, Total	0.065-1 mm	0.27	0.1	mg/kg - dry	SW7471B
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Mercury, Total	0.065-1 mm	0.26	0.1	mg/kg - dry	SW7471B
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-19	26-Mar-15	H15030394-063	Natural Sample	Mercury, Total	0.065-1 mm	0.13	0.1	mg/kg - dry	SW7471B
SS-01	15-May-15	H15050234-005	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-05A	15-May-15	H15050234-008	Natural Sample	Mercury, Total	0.065-1 mm	0.17	0.1	mg/kg - dry	SW7471B
SS-06G	15-May-15	H15050235-020	Natural Sample	Mercury, Total	0.065-1 mm	0.17	0.1	mg/kg - dry	SW7471B
SS-07	15-May-15	H15050235-026	Natural Sample	Mercury, Total	0.065-1 mm	0.28	0.1	mg/kg - dry	SW7471B
SS-08	15-May-15	H15050235-029	Natural Sample	Mercury, Total	0.065-1 mm	0.39	0.1	mg/kg - dry	SW7471B
SS-10A	15-May-15	H15050235-032	Natural Sample	Mercury, Total	0.065-1 mm	0.41	0.1	mg/kg - dry	SW7471B
SS-10B	15-May-15	H15050235-035	Natural Sample	Mercury, Total	0.065-1 mm	0.1	0.1	mg/kg - dry	SW7471B
SS-11C	15-May-15	H15050235-038	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-11D	15-May-15	H15050235-041	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-13	14-May-15	H15050235-044	Natural Sample	Mercury, Total	0.065-1 mm	0.17	0.1	mg/kg - dry	SW7471B
SS-14	14-May-15	H15050235-047	Natural Sample	Mercury, Total	0.065-1 mm	0.11	0.1	mg/kg - dry	SW7471B
SS-15A	14-May-15	H15050235-050	Natural Sample	Mercury, Total	0.065-1 mm	0.41	0.1	mg/kg - dry	SW7471B
SS-15G	14-May-15	H15050234-011	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-15B	14-May-15	H15050235-056	Natural Sample	Mercury, Total	0.065-1 mm	0.3	0.1	mg/kg - dry	SW7471B
SS-16B	14-May-15	H15050235-059	Natural Sample	Mercury, Total	0.065-1 mm	0.17	0.1	mg/kg - dry	SW7471B
SS-17D	14-May-15	H15050235-062	Natural Sample	Mercury, Total	0.065-1 mm	0.21	0.1	mg/kg - dry	SW7471B
SS-19	14-May-15	H15050235-065	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-01	09-Sep-15	H15090199-005	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Mercury, Total	0.065-1 mm	0.13	0.1	mg/kg - dry	SW7471B
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Mercury, Total	0.065-1 mm	0.12	0.1	mg/kg - dry	SW7471B
SS-07	09-Sep-15	H15090206-023	Natural Sample	Mercury, Total	0.065-1 mm	0.16	0.1	mg/kg - dry	SW7471B
SS-08	09-Sep-15	H15090206-026	Natural Sample	Mercury, Total	0.065-1 mm	0.54	0.1	mg/kg - dry	SW7471B

SS-10A	09-Sep-15	H15090206-029	Natural Sample	Mercury, Total	0.065-1 mm	0.16	0.1	mg/kg - dry	SW7471B
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Mercury, Total	0.065-1 mm	0.13	0.1	mg/kg - dry	SW7471B
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-13	08-Sep-15	H15090206-044	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-14	08-Sep-15	H15090206-047	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Mercury, Total	0.065-1 mm	0.33	0.1	mg/kg - dry	SW7471B
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Mercury, Total	0.065-1 mm	0.18	0.1	mg/kg - dry	SW7471B
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Mercury, Total	0.065-1 mm	0.19	0.1	mg/kg - dry	SW7471B
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Mercury, Total	0.065-1 mm	0.13	0.1	mg/kg - dry	SW7471B
SS-19	08-Sep-15	H15090206-065	Natural Sample	Mercury, Total	0.065-1 mm	0.11	0.1	mg/kg - dry	SW7471B
SS-10A	09-Sep-15	H15090206-032	Duplicate	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-01	04-Dec-15	H15120092-005	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Mercury, Total	0.065-1 mm	0.14	0.1	mg/kg - dry	SW7471B
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-07	04-Dec-15	H15120093-023	Natural Sample	Mercury, Total	0.065-1 mm	0.15	0.1	mg/kg - dry	SW7471B
SS-08	04-Dec-15	H15120093-026	Natural Sample	Mercury, Total	0.065-1 mm	0.24	0.1	mg/kg - dry	SW7471B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Mercury, Total	0.065-1 mm	0.19	0.1	mg/kg - dry	SW7471B
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Mercury, Total	0.065-1 mm	0.11	0.1	mg/kg - dry	SW7471B
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Mercury, Total	0.065-1 mm	ND	0.1	mg/kg - dry	SW7471B
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Mercury, Total	0.065-1 mm	0.14	0.1	mg/kg - dry	SW7471B
SS-10A	27-Mar-15	H15030394-031	Duplicate	Mercury, Total	1-2 mm	0.28	0.1	mg/kg - dry	SW7471B
SS-10A	27-Mar-15	H15030394-034	Duplicate	Mercury, Total	1-2 mm	0.38	0.1	mg/kg - dry	SW7471B
SS-15A	14-May-15	H15050235-054	Duplicate	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-06G	15-May-15	H15050235-024	Duplicate	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-14	08-Sep-15	H15090206-051	Duplicate	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-10B	04-Dec-15	H15120093-036	Duplicate	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-01	27-Mar-15	H15030393-008	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-07	27-Mar-15	H15030394-022	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-08	27-Mar-15	H15030394-025	Natural Sample	Mercury, Total	1-2 mm	0.17	0.1	mg/kg - dry	SW7471B
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Mercury, Total	1-2 mm	0.39	0.1	mg/kg - dry	SW7471B
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-13	26-Mar-15	H15030394-046	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B

SS-14	26-Mar-15	H15030394-049	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Mercury, Total	1-2 mm	0.26	0.1	mg/kg - dry	SW7471B
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Mercury, Total	1-2 mm	0.31	0.1	mg/kg - dry	SW7471B
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Mercury, Total	1-2 mm	0.38	0.1	mg/kg - dry	SW7471B
SS-19	26-Mar-15	H15030394-064	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-01	15-May-15	H15050234-006	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-05A	15-May-15	H15050234-009	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-06G	15-May-15	H15050235-021	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-07	15-May-15	H15050235-027	Natural Sample	Mercury, Total	1-2 mm	0.17	0.1	mg/kg - dry	SW7471B
SS-08	15-May-15	H15050235-030	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-10A	15-May-15	H15050235-033	Natural Sample	Mercury, Total	1-2 mm	0.2	0.1	mg/kg - dry	SW7471B
SS-10B	15-May-15	H15050235-036	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-11C	15-May-15	H15050235-039	Natural Sample	Mercury, Total	1-2 mm	0.2	0.1	mg/kg - dry	SW7471B
SS-11D	15-May-15	H15050235-042	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-13	14-May-15	H15050235-045	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-14	14-May-15	H15050235-048	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-15A	14-May-15	H15050235-051	Natural Sample	Mercury, Total	1-2 mm	0.31	0.1	mg/kg - dry	SW7471B
SS-15G	14-May-15	H15050234-012	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-15B	14-May-15	H15050235-057	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-16B	14-May-15	H15050235-060	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-17D	14-May-15	H15050235-063	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-19	14-May-15	H15050235-066	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-01	09-Sep-15	H15090199-006	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-07	09-Sep-15	H15090206-024	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-08	09-Sep-15	H15090206-027	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-13	08-Sep-15	H15090206-045	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-14	08-Sep-15	H15090206-048	Natural Sample	Mercury, Total	1-2 mm	0.19	0.1	mg/kg - dry	SW7471B
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Mercury, Total	1-2 mm	0.24	0.1	mg/kg - dry	SW7471B
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Mercury, Total	1-2 mm	0.27	0.1	mg/kg - dry	SW7471B

SS-17D	08-Sep-15	H15090206-063	Natural Sample	Mercury, Total	1-2 mm	0.17	0.1	mg/kg - dry	SW7471B
SS-19	08-Sep-15	H15090206-066	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-10A	09-Sep-15	H15090206-033	Duplicate	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-01	04-Dec-15	H15120092-006	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-07	04-Dec-15	H15120093-024	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-08	04-Dec-15	H15120093-027	Natural Sample	Mercury, Total	1-2 mm	0.15	0.1	mg/kg - dry	SW7471B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Mercury, Total	1-2 mm	ND	0.1	mg/kg - dry	SW7471B
SS-10A	27-Mar-15	H15030394-029	Duplicate	Molybdenum, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-032	Duplicate	Molybdenum, Total	<0.065 mm	8	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-052	Duplicate	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-022	Duplicate	Molybdenum, Total	<0.065 mm	14	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-049	Duplicate	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-034	Duplicate	Molybdenum, Total	<0.065 mm	8	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-006	Natural Sample	Molybdenum, Total	<0.065 mm	21	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Molybdenum, Total	<0.065 mm	16	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Molybdenum, Total	<0.065 mm	16	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-020	Natural Sample	Molybdenum, Total	<0.065 mm	23	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-023	Natural Sample	Molybdenum, Total	<0.065 mm	15	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Molybdenum, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Molybdenum, Total	<0.065 mm	9	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Molybdenum, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-044	Natural Sample	Molybdenum, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-047	Natural Sample	Molybdenum, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Molybdenum, Total	<0.065 mm	11	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Molybdenum, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-062	Natural Sample	Molybdenum, Total	<0.065 mm	26	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-004	Natural Sample	Molybdenum, Total	<0.065 mm	34	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-007	Natural Sample	Molybdenum, Total	<0.065 mm	24	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-019	Natural Sample	Molybdenum, Total	<0.065 mm	20	5	mg/kg - dry	SW6020

SS-07	15-May-15	H15050235-025	Natural Sample	Molybdenum, Total	<0.065 mm	20	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-028	Natural Sample	Molybdenum, Total	<0.065 mm	18	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-031	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-034	Natural Sample	Molybdenum, Total	<0.065 mm	8	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-037	Natural Sample	Molybdenum, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-040	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-043	Natural Sample	Molybdenum, Total	<0.065 mm	8	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-046	Natural Sample	Molybdenum, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-049	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-010	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-058	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-061	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-064	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-004	Natural Sample	Molybdenum, Total	<0.065 mm	18	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Molybdenum, Total	<0.065 mm	25	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Molybdenum, Total	<0.065 mm	19	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-022	Natural Sample	Molybdenum, Total	<0.065 mm	16	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-025	Natural Sample	Molybdenum, Total	<0.065 mm	14	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Molybdenum, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Molybdenum, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Molybdenum, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-043	Natural Sample	Molybdenum, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-046	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Molybdenum, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Molybdenum, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-064	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-031	Duplicate	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-004	Natural Sample	Molybdenum, Total	<0.065 mm	23	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Molybdenum, Total	<0.065 mm	14	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Molybdenum, Total	<0.065 mm	20	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-022	Natural Sample	Molybdenum, Total	<0.065 mm	20	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-025	Natural Sample	Molybdenum, Total	<0.065 mm	16	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Molybdenum, Total	<0.065 mm	8	5	mg/kg - dry	SW6020

SS-11C	04-Dec-15	H15120093-037	Natural Sample	Molybdenum, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Molybdenum, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Molybdenum, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-030	Duplicate	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-033	Duplicate	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-053	Duplicate	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-023	Duplicate	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-050	Duplicate	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-035	Duplicate	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-007	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-021	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-024	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-045	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-048	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-063	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-005	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-008	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-020	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-026	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-029	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-032	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-035	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-038	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-041	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-044	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-047	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-050	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-011	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020

SS-15B	14-May-15	H15050235-056	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-059	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-062	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-065	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-005	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Molybdenum, Total	0.065-1 mm	16	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-023	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-026	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-044	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-047	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-065	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-032	Duplicate	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-005	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-023	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-026	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Molybdenum, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-031	Duplicate	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-034	Duplicate	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-054	Duplicate	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-024	Duplicate	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-051	Duplicate	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-036	Duplicate	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-008	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020

SS-05A	27-Mar-15	H15030393-011	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-022	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-025	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-046	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-049	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-064	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-006	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-009	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-021	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-027	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-030	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-033	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-036	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-039	Natural Sample	Molybdenum, Total	1-2 mm	8	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-042	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-045	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-048	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-051	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-012	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-060	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-063	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-066	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-006	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-024	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-027	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020

SS-10B	09-Sep-15	H15090206-036	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-045	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-048	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-066	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-033	Duplicate	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-006	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-024	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-027	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Molybdenum, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-029	Duplicate	Nickel, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-032	Duplicate	Nickel, Total	<0.065 mm	15	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-052	Duplicate	Nickel, Total	<0.065 mm	18	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-022	Duplicate	Nickel, Total	<0.065 mm	29	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-049	Duplicate	Nickel, Total	<0.065 mm	13	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-034	Duplicate	Nickel, Total	<0.065 mm	17	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-006	Natural Sample	Nickel, Total	<0.065 mm	19	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Nickel, Total	<0.065 mm	20	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Nickel, Total	<0.065 mm	22	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-020	Natural Sample	Nickel, Total	<0.065 mm	21	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-023	Natural Sample	Nickel, Total	<0.065 mm	15	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Nickel, Total	<0.065 mm	15	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Nickel, Total	<0.065 mm	15	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Nickel, Total	<0.065 mm	16	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Nickel, Total	<0.065 mm	24	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-044	Natural Sample	Nickel, Total	<0.065 mm	18	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-047	Natural Sample	Nickel, Total	<0.065 mm	17	5	mg/kg - dry	SW6010B

SS-15A	26-Mar-15	H15030394-050	Natural Sample	Nickel, Total	<0.065 mm	22	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Nickel, Total	<0.065 mm	36	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Nickel, Total	<0.065 mm	24	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Nickel, Total	<0.065 mm	28	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Nickel, Total	<0.065 mm	30	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-062	Natural Sample	Nickel, Total	<0.065 mm	36	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-004	Natural Sample	Nickel, Total	<0.065 mm	22	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-007	Natural Sample	Nickel, Total	<0.065 mm	22	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-019	Natural Sample	Nickel, Total	<0.065 mm	23	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-025	Natural Sample	Nickel, Total	<0.065 mm	24	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-028	Natural Sample	Nickel, Total	<0.065 mm	18	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-031	Natural Sample	Nickel, Total	<0.065 mm	11	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-034	Natural Sample	Nickel, Total	<0.065 mm	15	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-037	Natural Sample	Nickel, Total	<0.065 mm	18	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-040	Natural Sample	Nickel, Total	<0.065 mm	34	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-043	Natural Sample	Nickel, Total	<0.065 mm	18	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-046	Natural Sample	Nickel, Total	<0.065 mm	18	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-049	Natural Sample	Nickel, Total	<0.065 mm	16	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-010	Natural Sample	Nickel, Total	<0.065 mm	27	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Nickel, Total	<0.065 mm	20	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-058	Natural Sample	Nickel, Total	<0.065 mm	30	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-061	Natural Sample	Nickel, Total	<0.065 mm	20	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-064	Natural Sample	Nickel, Total	<0.065 mm	25	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-004	Natural Sample	Nickel, Total	<0.065 mm	20	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Nickel, Total	<0.065 mm	28	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Nickel, Total	<0.065 mm	28	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-022	Natural Sample	Nickel, Total	<0.065 mm	25	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-025	Natural Sample	Nickel, Total	<0.065 mm	26	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Nickel, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Nickel, Total	<0.065 mm	12	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Nickel, Total	<0.065 mm	16	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Nickel, Total	<0.065 mm	17	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-043	Natural Sample	Nickel, Total	<0.065 mm	14	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-046	Natural Sample	Nickel, Total	<0.065 mm	22	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Nickel, Total	<0.065 mm	25	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Nickel, Total	<0.065 mm	31	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Nickel, Total	<0.065 mm	25	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Nickel, Total	<0.065 mm	24	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Nickel, Total	<0.065 mm	19	5	mg/kg - dry	SW6010B

SS-19	08-Sep-15	H15090206-064	Natural Sample	Nickel, Total	<0.065 mm	27	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-031	Duplicate	Nickel, Total	<0.065 mm	10	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-004	Natural Sample	Nickel, Total	<0.065 mm	21	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Nickel, Total	<0.065 mm	21	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Nickel, Total	<0.065 mm	32	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-022	Natural Sample	Nickel, Total	<0.065 mm	30	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-025	Natural Sample	Nickel, Total	<0.065 mm	23	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Nickel, Total	<0.065 mm	19	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Nickel, Total	<0.065 mm	14	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Nickel, Total	<0.065 mm	20	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Nickel, Total	<0.065 mm	18	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Nickel, Total	<0.065 mm	22	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-030	Duplicate	Nickel, Total	0.065-1 mm	5	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-033	Duplicate	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-053	Duplicate	Nickel, Total	0.065-1 mm	7	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-023	Duplicate	Nickel, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-050	Duplicate	Nickel, Total	0.065-1 mm	5	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-035	Duplicate	Nickel, Total	0.065-1 mm	7	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-007	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Nickel, Total	0.065-1 mm	8	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-021	Natural Sample	Nickel, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-024	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Nickel, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-045	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-048	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Nickel, Total	0.065-1 mm	7	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Nickel, Total	0.065-1 mm	9	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Nickel, Total	0.065-1 mm	7	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Nickel, Total	0.065-1 mm	7	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-063	Natural Sample	Nickel, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-005	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-008	Natural Sample	Nickel, Total	0.065-1 mm	13	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-020	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-026	Natural Sample	Nickel, Total	0.065-1 mm	8	5	mg/kg - dry	SW6010B

SS-08	15-May-15	H15050235-029	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-032	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-035	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-038	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-041	Natural Sample	Nickel, Total	0.065-1 mm	5	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-044	Natural Sample	Nickel, Total	0.065-1 mm	7	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-047	Natural Sample	Nickel, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-050	Natural Sample	Nickel, Total	0.065-1 mm	8	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-011	Natural Sample	Nickel, Total	0.065-1 mm	13	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-056	Natural Sample	Nickel, Total	0.065-1 mm	10	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-059	Natural Sample	Nickel, Total	0.065-1 mm	8	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-062	Natural Sample	Nickel, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-065	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-005	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Nickel, Total	0.065-1 mm	26	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-023	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-026	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Nickel, Total	0.065-1 mm	5	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-044	Natural Sample	Nickel, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-047	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Nickel, Total	0.065-1 mm	5	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Nickel, Total	0.065-1 mm	8	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Nickel, Total	0.065-1 mm	9	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Nickel, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Nickel, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-065	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-032	Duplicate	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-005	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Nickel, Total	0.065-1 mm	11	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-023	Natural Sample	Nickel, Total	0.065-1 mm	5	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-026	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Nickel, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6010B

SS-11D	04-Dec-15	H15120093-041	Natural Sample	Nickel, Total	0.065-1 mm	6	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Nickel, Total	0.065-1 mm	5	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-031	Duplicate	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-034	Duplicate	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-054	Duplicate	Nickel, Total	1-2 mm	8	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-024	Duplicate	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-051	Duplicate	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-036	Duplicate	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-008	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-022	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-025	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Nickel, Total	1-2 mm	6	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-046	Natural Sample	Nickel, Total	1-2 mm	6	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-049	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Nickel, Total	1-2 mm	9	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Nickel, Total	1-2 mm	9	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Nickel, Total	1-2 mm	5	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-064	Natural Sample	Nickel, Total	1-2 mm	5	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-006	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-009	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-021	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-027	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-030	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-033	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-036	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-039	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-042	Natural Sample	Nickel, Total	1-2 mm	6	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-045	Natural Sample	Nickel, Total	1-2 mm	7	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-048	Natural Sample	Nickel, Total	1-2 mm	5	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-051	Natural Sample	Nickel, Total	1-2 mm	6	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-012	Natural Sample	Nickel, Total	1-2 mm	14	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Nickel, Total	1-2 mm	10	5	mg/kg - dry	SW6010B

SS-16B	14-May-15	H15050235-060	Natural Sample	Nickel, Total	1-2 mm	5	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-063	Natural Sample	Nickel, Total	1-2 mm	7	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-066	Natural Sample	Nickel, Total	1-2 mm	6	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-006	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Nickel, Total	1-2 mm	5	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-024	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-027	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Nickel, Total	1-2 mm	5	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-045	Natural Sample	Nickel, Total	1-2 mm	7	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-048	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Nickel, Total	1-2 mm	6	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Nickel, Total	1-2 mm	8	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Nickel, Total	1-2 mm	7	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-066	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-033	Duplicate	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-006	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-024	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-027	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Nickel, Total	1-2 mm	8	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Nickel, Total	1-2 mm	ND	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-029	Duplicate	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-032	Duplicate	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-052	Duplicate	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-022	Duplicate	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-049	Duplicate	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-034	Duplicate	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-006	Natural Sample	Selenium, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020

SS-06G	27-Mar-15	H15030394-017	Natural Sample	Selenium, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-020	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-023	Natural Sample	Selenium, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-044	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-047	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Selenium, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-062	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-004	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-007	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-019	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-025	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-028	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-031	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-034	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-037	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-040	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-043	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-046	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-049	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-010	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-058	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-061	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-064	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-004	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-022	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-025	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020

SS-11C	09-Sep-15	H15090206-037	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-043	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-046	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-064	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-031	Duplicate	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-004	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-022	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-025	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Selenium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-030	Duplicate	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-033	Duplicate	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-053	Duplicate	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-023	Duplicate	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-050	Duplicate	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-035	Duplicate	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-007	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-021	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-024	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-045	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-048	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020

SS-15G	26-Mar-15	H15030393-013	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-063	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-005	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-008	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-020	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-026	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-029	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-032	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-035	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-038	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-041	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-044	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-047	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-050	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-011	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-056	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-059	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-062	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-065	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-005	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-023	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-026	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-044	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-047	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-065	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020

SS-10A	09-Sep-15	H15090206-032	Duplicate	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-005	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-023	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-026	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Selenium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-031	Duplicate	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-034	Duplicate	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-054	Duplicate	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-024	Duplicate	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-051	Duplicate	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-036	Duplicate	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-008	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-022	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-025	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-046	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-049	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-064	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-006	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-009	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-021	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-027	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-030	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020

SS-10A	15-May-15	H15050235-033	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-036	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-039	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-042	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-045	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-048	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-051	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-012	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-060	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-063	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-066	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-006	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-024	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-027	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-045	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-048	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-066	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-033	Duplicate	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-006	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-024	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-027	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020

SS-17D	03-Dec-15	H15120093-045	Natural Sample	Selenium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-029	Duplicate	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-032	Duplicate	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-052	Duplicate	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-022	Duplicate	Silver, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-049	Duplicate	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-034	Duplicate	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-006	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Silver, Total	<0.065 mm	10	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-020	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-023	Natural Sample	Silver, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-044	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-047	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Silver, Total	<0.065 mm	16	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Silver, Total	<0.065 mm	8	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-062	Natural Sample	Silver, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-004	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-007	Natural Sample	Silver, Total	<0.065 mm	9	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-019	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-025	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-028	Natural Sample	Silver, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-031	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-034	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-037	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-040	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-043	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-046	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-049	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-010	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-058	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020

SS-17D	14-May-15	H15050235-061	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-064	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-004	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Silver, Total	<0.065 mm	10	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Silver, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-022	Natural Sample	Silver, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-025	Natural Sample	Silver, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-043	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-046	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Silver, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-064	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-031	Duplicate	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-004	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Silver, Total	<0.065 mm	8	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-022	Natural Sample	Silver, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-025	Natural Sample	Silver, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Silver, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-030	Duplicate	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-033	Duplicate	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-053	Duplicate	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-023	Duplicate	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-050	Duplicate	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-035	Duplicate	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-007	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020

SS-07	27-Mar-15	H15030394-021	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-024	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-045	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-048	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Silver, Total	0.065-1 mm	6	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-063	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-005	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-008	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-020	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-026	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-029	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-032	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-035	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-038	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-041	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-044	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-047	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-050	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-011	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-056	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-059	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-062	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-065	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-005	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-023	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-026	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020

SS-11D	09-Sep-15	H15090206-041	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-044	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-047	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-065	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-032	Duplicate	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-005	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Silver, Total	0.065-1 mm	9	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-023	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-026	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Silver, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-031	Duplicate	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-034	Duplicate	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-054	Duplicate	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-024	Duplicate	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-051	Duplicate	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-036	Duplicate	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-008	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Silver, Total	1-2 mm	7	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-022	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-025	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-046	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-049	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Silver, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020

SS-15B	26-Mar-15	H15030394-055	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-064	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-006	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-009	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-021	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-027	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-030	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-033	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-036	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-039	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-042	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-045	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-048	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-051	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-012	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-060	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-063	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-066	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-006	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-024	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-027	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-045	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-048	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Silver, Total	1-2 mm	13	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-066	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-033	Duplicate	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020

SS-01	04-Dec-15	H15120092-006	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-024	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-027	Natural Sample	Silver, Total	1-2 mm	6	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Silver, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-029	Duplicate	Uranium, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-032	Duplicate	Uranium, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-052	Duplicate	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-022	Duplicate	Uranium, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-049	Duplicate	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-034	Duplicate	Uranium, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-006	Natural Sample	Uranium, Total	<0.065 mm	11	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Uranium, Total	<0.065 mm	9	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Uranium, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-020	Natural Sample	Uranium, Total	<0.065 mm	10	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-023	Natural Sample	Uranium, Total	<0.065 mm	10	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Uranium, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Uranium, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Uranium, Total	<0.065 mm	8	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Uranium, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-044	Natural Sample	Uranium, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-047	Natural Sample	Uranium, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Uranium, Total	<0.065 mm	10	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Uranium, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-062	Natural Sample	Uranium, Total	<0.065 mm	63	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-004	Natural Sample	Uranium, Total	<0.065 mm	8	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-007	Natural Sample	Uranium, Total	<0.065 mm	11	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-019	Natural Sample	Uranium, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-025	Natural Sample	Uranium, Total	<0.065 mm	8	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-028	Natural Sample	Uranium, Total	<0.065 mm	14	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-031	Natural Sample	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020

SS-10B	15-May-15	H15050235-034	Natural Sample	Uranium, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-037	Natural Sample	Uranium, Total	<0.065 mm	9	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-040	Natural Sample	Uranium, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-043	Natural Sample	Uranium, Total	<0.065 mm	9	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-046	Natural Sample	Uranium, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-049	Natural Sample	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-010	Natural Sample	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-058	Natural Sample	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-061	Natural Sample	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-064	Natural Sample	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-004	Natural Sample	Uranium, Total	<0.065 mm	8	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Uranium, Total	<0.065 mm	22	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Uranium, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-022	Natural Sample	Uranium, Total	<0.065 mm	12	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-025	Natural Sample	Uranium, Total	<0.065 mm	12	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Uranium, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Uranium, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Uranium, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Uranium, Total	<0.065 mm	8	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-043	Natural Sample	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-046	Natural Sample	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Uranium, Total	<0.065 mm	5	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Uranium, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Uranium, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-064	Natural Sample	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-031	Duplicate	Uranium, Total	<0.065 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-004	Natural Sample	Uranium, Total	<0.065 mm	8	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Uranium, Total	<0.065 mm	9	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Uranium, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-022	Natural Sample	Uranium, Total	<0.065 mm	10	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-025	Natural Sample	Uranium, Total	<0.065 mm	12	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Uranium, Total	<0.065 mm	8	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Uranium, Total	<0.065 mm	8	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Uranium, Total	<0.065 mm	6	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Uranium, Total	<0.065 mm	7	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Uranium, Total	<0.065 mm	8	5	mg/kg - dry	SW6020

SS-10A	27-Mar-15	H15030394-030	Duplicate	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-033	Duplicate	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-053	Duplicate	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-023	Duplicate	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-050	Duplicate	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-035	Duplicate	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-007	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Uranium, Total	0.065-1 mm	6	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-021	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-024	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-045	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-048	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Uranium, Total	0.065-1 mm	39	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-063	Natural Sample	Uranium, Total	0.065-1 mm	9	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-005	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-008	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-020	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-026	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-029	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-032	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-035	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-038	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-041	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-044	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-047	Natural Sample	Uranium, Total	0.065-1 mm	5	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-050	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-011	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-056	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-059	Natural Sample	Uranium, Total	0.065-1 mm	9	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-062	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020

SS-19	14-May-15	H15050235-065	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-005	Natural Sample	Uranium, Total	0.065-1 mm	7	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Uranium, Total	0.065-1 mm	15	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-023	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-026	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Uranium, Total	0.065-1 mm	5	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-044	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-047	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-065	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-032	Duplicate	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-005	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-023	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-026	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Uranium, Total	0.065-1 mm	11	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Uranium, Total	0.065-1 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-031	Duplicate	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-034	Duplicate	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-054	Duplicate	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-024	Duplicate	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-051	Duplicate	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-036	Duplicate	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-008	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-022	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020

SS-08	27-Mar-15	H15030394-025	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-046	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-049	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-064	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-006	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-009	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-021	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-027	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-030	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-033	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-036	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-039	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-042	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-045	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-048	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-051	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-012	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-060	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-063	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-066	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-006	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-024	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-027	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020

SS-13	08-Sep-15	H15090206-045	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-048	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-066	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-033	Duplicate	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-006	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-024	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-027	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Uranium, Total	1-2 mm	ND	5	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-029	Duplicate	Vanadium, Total	<0.065 mm	33	2	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-032	Duplicate	Vanadium, Total	<0.065 mm	50	2	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-052	Duplicate	Vanadium, Total	<0.065 mm	53	1	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-022	Duplicate	Vanadium, Total	<0.065 mm	80	1	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-049	Duplicate	Vanadium, Total	<0.065 mm	45	2	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-034	Duplicate	Vanadium, Total	<0.065 mm	39	3	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-006	Natural Sample	Vanadium, Total	<0.065 mm	109	4	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Vanadium, Total	<0.065 mm	106	4	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Vanadium, Total	<0.065 mm	90	10	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-020	Natural Sample	Vanadium, Total	<0.065 mm	87	10	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-023	Natural Sample	Vanadium, Total	<0.065 mm	71	10	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-026	Natural Sample	Vanadium, Total	<0.065 mm	46	2	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Vanadium, Total	<0.065 mm	48	2	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Vanadium, Total	<0.065 mm	57	2	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Vanadium, Total	<0.065 mm	66	2	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-044	Natural Sample	Vanadium, Total	<0.065 mm	60	3	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-047	Natural Sample	Vanadium, Total	<0.065 mm	55	2	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Vanadium, Total	<0.065 mm	68	2	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Vanadium, Total	<0.065 mm	71	10	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Vanadium, Total	<0.065 mm	70	3	mg/kg - dry	SW6020

SS-16B	26-Mar-15	H15030394-056	Natural Sample	Vanadium, Total	<0.065 mm	81	2	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Vanadium, Total	<0.065 mm	110	2	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-062	Natural Sample	Vanadium, Total	<0.065 mm	76	1	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-004	Natural Sample	Vanadium, Total	<0.065 mm	92	1	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-007	Natural Sample	Vanadium, Total	<0.065 mm	92	1	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-019	Natural Sample	Vanadium, Total	<0.065 mm	86	1	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-025	Natural Sample	Vanadium, Total	<0.065 mm	84	1	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-028	Natural Sample	Vanadium, Total	<0.065 mm	67	2	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-031	Natural Sample	Vanadium, Total	<0.065 mm	32	1	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-034	Natural Sample	Vanadium, Total	<0.065 mm	55	1	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-037	Natural Sample	Vanadium, Total	<0.065 mm	63	1	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-040	Natural Sample	Vanadium, Total	<0.065 mm	73	1	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-043	Natural Sample	Vanadium, Total	<0.065 mm	53	1	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-046	Natural Sample	Vanadium, Total	<0.065 mm	51	1	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-049	Natural Sample	Vanadium, Total	<0.065 mm	45	1	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-010	Natural Sample	Vanadium, Total	<0.065 mm	52	1	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Vanadium, Total	<0.065 mm	54	1	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-058	Natural Sample	Vanadium, Total	<0.065 mm	97	1	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-061	Natural Sample	Vanadium, Total	<0.065 mm	64	1	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-064	Natural Sample	Vanadium, Total	<0.065 mm	54	1	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-004	Natural Sample	Vanadium, Total	<0.065 mm	98	2	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Vanadium, Total	<0.065 mm	97	2	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Vanadium, Total	<0.065 mm	97	2	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-022	Natural Sample	Vanadium, Total	<0.065 mm	100	3	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-025	Natural Sample	Vanadium, Total	<0.065 mm	61	3	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Vanadium, Total	<0.065 mm	61	3	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Vanadium, Total	<0.065 mm	49	2	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Vanadium, Total	<0.065 mm	64	2	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Vanadium, Total	<0.065 mm	65	2	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-043	Natural Sample	Vanadium, Total	<0.065 mm	46	3	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-046	Natural Sample	Vanadium, Total	<0.065 mm	60	2	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Vanadium, Total	<0.065 mm	76	5	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Vanadium, Total	<0.065 mm	61	2	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Vanadium, Total	<0.065 mm	58	3	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Vanadium, Total	<0.065 mm	86	2	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Vanadium, Total	<0.065 mm	80	2	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-064	Natural Sample	Vanadium, Total	<0.065 mm	89	2	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-031	Duplicate	Vanadium, Total	<0.065 mm	59	2	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-004	Natural Sample	Vanadium, Total	<0.065 mm	99	2	mg/kg - dry	SW6020

SS-05A	04-Dec-15	H15120092-007	Natural Sample	Vanadium, Total	<0.065 mm	92	1	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Vanadium, Total	<0.065 mm	86	2	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-022	Natural Sample	Vanadium, Total	<0.065 mm	87	2	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-025	Natural Sample	Vanadium, Total	<0.065 mm	63	2	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Vanadium, Total	<0.065 mm	82	2	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Vanadium, Total	<0.065 mm	41	2	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Vanadium, Total	<0.065 mm	56	2	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Vanadium, Total	<0.065 mm	58	2	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Vanadium, Total	<0.065 mm	69	2	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-030	Duplicate	Vanadium, Total	0.065-1 mm	48	1	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-033	Duplicate	Vanadium, Total	0.065-1 mm	34	1	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-053	Duplicate	Vanadium, Total	0.065-1 mm	40	1	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-023	Duplicate	Vanadium, Total	0.065-1 mm	32	1	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-050	Duplicate	Vanadium, Total	0.065-1 mm	33	1	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-035	Duplicate	Vanadium, Total	0.065-1 mm	49	1	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-007	Natural Sample	Vanadium, Total	0.065-1 mm	55	6	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Vanadium, Total	0.065-1 mm	64	3	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Vanadium, Total	0.065-1 mm	35	7	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-021	Natural Sample	Vanadium, Total	0.065-1 mm	76	7	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-024	Natural Sample	Vanadium, Total	0.065-1 mm	27	7	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Vanadium, Total	0.065-1 mm	41	1	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Vanadium, Total	0.065-1 mm	56	1	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Vanadium, Total	0.065-1 mm	118	1	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Vanadium, Total	0.065-1 mm	17	1	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-045	Natural Sample	Vanadium, Total	0.065-1 mm	20	1	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-048	Natural Sample	Vanadium, Total	0.065-1 mm	60	1	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Vanadium, Total	0.065-1 mm	162	1	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Vanadium, Total	0.065-1 mm	39	7	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Vanadium, Total	0.065-1 mm	45	1	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Vanadium, Total	0.065-1 mm	105	1	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-060	Natural Sample	Vanadium, Total	0.065-1 mm	23	1	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-063	Natural Sample	Vanadium, Total	0.065-1 mm	55	1	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-005	Natural Sample	Vanadium, Total	0.065-1 mm	41	1	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-008	Natural Sample	Vanadium, Total	0.065-1 mm	118	1	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-020	Natural Sample	Vanadium, Total	0.065-1 mm	32	1	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-026	Natural Sample	Vanadium, Total	0.065-1 mm	79	1	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-029	Natural Sample	Vanadium, Total	0.065-1 mm	19	1	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-032	Natural Sample	Vanadium, Total	0.065-1 mm	50	1	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-035	Natural Sample	Vanadium, Total	0.065-1 mm	102	1	mg/kg - dry	SW6020

SS-11C	15-May-15	H15050235-038	Natural Sample	Vanadium, Total	0.065-1 mm	34	1	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-041	Natural Sample	Vanadium, Total	0.065-1 mm	26	1	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-044	Natural Sample	Vanadium, Total	0.065-1 mm	31	1	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-047	Natural Sample	Vanadium, Total	0.065-1 mm	36	1	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-050	Natural Sample	Vanadium, Total	0.065-1 mm	56	1	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-011	Natural Sample	Vanadium, Total	0.065-1 mm	43	1	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-056	Natural Sample	Vanadium, Total	0.065-1 mm	34	1	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-059	Natural Sample	Vanadium, Total	0.065-1 mm	80	1	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-062	Natural Sample	Vanadium, Total	0.065-1 mm	40	1	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-065	Natural Sample	Vanadium, Total	0.065-1 mm	26	1	mg/kg - dry	SW6020
SS-01	09-Sep-15	H15090199-005	Natural Sample	Vanadium, Total	0.065-1 mm	46	1	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Vanadium, Total	0.065-1 mm	210	1	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Vanadium, Total	0.065-1 mm	18	1	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-023	Natural Sample	Vanadium, Total	0.065-1 mm	25	1	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-026	Natural Sample	Vanadium, Total	0.065-1 mm	23	1	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Vanadium, Total	0.065-1 mm	61	1	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Vanadium, Total	0.065-1 mm	43	1	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Vanadium, Total	0.065-1 mm	105	1	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Vanadium, Total	0.065-1 mm	13	1	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-044	Natural Sample	Vanadium, Total	0.065-1 mm	27	1	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-047	Natural Sample	Vanadium, Total	0.065-1 mm	38	1	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Vanadium, Total	0.065-1 mm	32	1	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Vanadium, Total	0.065-1 mm	39	1	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Vanadium, Total	0.065-1 mm	134	1	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Vanadium, Total	0.065-1 mm	51	1	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Vanadium, Total	0.065-1 mm	56	1	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-065	Natural Sample	Vanadium, Total	0.065-1 mm	12	1	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-032	Duplicate	Vanadium, Total	0.065-1 mm	59	1	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-005	Natural Sample	Vanadium, Total	0.065-1 mm	26	1	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Vanadium, Total	0.065-1 mm	75	1	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-020	Natural Sample	Vanadium, Total	0.065-1 mm	22	1	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-023	Natural Sample	Vanadium, Total	0.065-1 mm	40	1	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-026	Natural Sample	Vanadium, Total	0.065-1 mm	17	1	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Vanadium, Total	0.065-1 mm	83	1	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Vanadium, Total	0.065-1 mm	45	1	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Vanadium, Total	0.065-1 mm	5	1	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Vanadium, Total	0.065-1 mm	22	1	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Vanadium, Total	0.065-1 mm	43	1	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-031	Duplicate	Vanadium, Total	1-2 mm	15	1	mg/kg - dry	SW6020

SS-10A	27-Mar-15	H15030394-034	Duplicate	Vanadium, Total	1-2 mm	18	1	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-054	Duplicate	Vanadium, Total	1-2 mm	21	1	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-024	Duplicate	Vanadium, Total	1-2 mm	18	1	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-051	Duplicate	Vanadium, Total	1-2 mm	15	1	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-036	Duplicate	Vanadium, Total	1-2 mm	10	1	mg/kg - dry	SW6020
SS-01	27-Mar-15	H15030393-008	Natural Sample	Vanadium, Total	1-2 mm	17	7	mg/kg - dry	SW6020
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Vanadium, Total	1-2 mm	24	6	mg/kg - dry	SW6020
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Vanadium, Total	1-2 mm	25	7	mg/kg - dry	SW6020
SS-07	27-Mar-15	H15030394-022	Natural Sample	Vanadium, Total	1-2 mm	16	7	mg/kg - dry	SW6020
SS-08	27-Mar-15	H15030394-025	Natural Sample	Vanadium, Total	1-2 mm	26	6	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Vanadium, Total	1-2 mm	25	1	mg/kg - dry	SW6020
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Vanadium, Total	1-2 mm	11	1	mg/kg - dry	SW6020
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Vanadium, Total	1-2 mm	27	1	mg/kg - dry	SW6020
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Vanadium, Total	1-2 mm	14	1	mg/kg - dry	SW6020
SS-13	26-Mar-15	H15030394-046	Natural Sample	Vanadium, Total	1-2 mm	14	1	mg/kg - dry	SW6020
SS-14	26-Mar-15	H15030394-049	Natural Sample	Vanadium, Total	1-2 mm	11	1	mg/kg - dry	SW6020
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Vanadium, Total	1-2 mm	19	1	mg/kg - dry	SW6020
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Vanadium, Total	1-2 mm	24	1	mg/kg - dry	SW6020
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Vanadium, Total	1-2 mm	22	1	mg/kg - dry	SW6020
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Vanadium, Total	1-2 mm	18	1	mg/kg - dry	SW6020
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Vanadium, Total	1-2 mm	16	1	mg/kg - dry	SW6020
SS-19	26-Mar-15	H15030394-064	Natural Sample	Vanadium, Total	1-2 mm	15	1	mg/kg - dry	SW6020
SS-01	15-May-15	H15050234-006	Natural Sample	Vanadium, Total	1-2 mm	15	1	mg/kg - dry	SW6020
SS-05A	15-May-15	H15050234-009	Natural Sample	Vanadium, Total	1-2 mm	22	1	mg/kg - dry	SW6020
SS-06G	15-May-15	H15050235-021	Natural Sample	Vanadium, Total	1-2 mm	18	1	mg/kg - dry	SW6020
SS-07	15-May-15	H15050235-027	Natural Sample	Vanadium, Total	1-2 mm	25	1	mg/kg - dry	SW6020
SS-08	15-May-15	H15050235-030	Natural Sample	Vanadium, Total	1-2 mm	16	1	mg/kg - dry	SW6020
SS-10A	15-May-15	H15050235-033	Natural Sample	Vanadium, Total	1-2 mm	23	1	mg/kg - dry	SW6020
SS-10B	15-May-15	H15050235-036	Natural Sample	Vanadium, Total	1-2 mm	14	1	mg/kg - dry	SW6020
SS-11C	15-May-15	H15050235-039	Natural Sample	Vanadium, Total	1-2 mm	12	1	mg/kg - dry	SW6020
SS-11D	15-May-15	H15050235-042	Natural Sample	Vanadium, Total	1-2 mm	14	1	mg/kg - dry	SW6020
SS-13	14-May-15	H15050235-045	Natural Sample	Vanadium, Total	1-2 mm	16	1	mg/kg - dry	SW6020
SS-14	14-May-15	H15050235-048	Natural Sample	Vanadium, Total	1-2 mm	15	1	mg/kg - dry	SW6020
SS-15A	14-May-15	H15050235-051	Natural Sample	Vanadium, Total	1-2 mm	18	1	mg/kg - dry	SW6020
SS-15G	14-May-15	H15050234-012	Natural Sample	Vanadium, Total	1-2 mm	42	1	mg/kg - dry	SW6020
SS-15B	14-May-15	H15050235-057	Natural Sample	Vanadium, Total	1-2 mm	26	1	mg/kg - dry	SW6020
SS-16B	14-May-15	H15050235-060	Natural Sample	Vanadium, Total	1-2 mm	23	1	mg/kg - dry	SW6020
SS-17D	14-May-15	H15050235-063	Natural Sample	Vanadium, Total	1-2 mm	22	1	mg/kg - dry	SW6020
SS-19	14-May-15	H15050235-066	Natural Sample	Vanadium, Total	1-2 mm	16	1	mg/kg - dry	SW6020

SS-01	09-Sep-15	H15090199-006	Natural Sample	Vanadium, Total	1-2 mm	18	1	mg/kg - dry	SW6020
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Vanadium, Total	1-2 mm	24	1	mg/kg - dry	SW6020
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Vanadium, Total	1-2 mm	17	1	mg/kg - dry	SW6020
SS-07	09-Sep-15	H15090206-024	Natural Sample	Vanadium, Total	1-2 mm	16	1	mg/kg - dry	SW6020
SS-08	09-Sep-15	H15090206-027	Natural Sample	Vanadium, Total	1-2 mm	21	1	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Vanadium, Total	1-2 mm	13	1	mg/kg - dry	SW6020
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Vanadium, Total	1-2 mm	16	1	mg/kg - dry	SW6020
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Vanadium, Total	1-2 mm	18	1	mg/kg - dry	SW6020
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Vanadium, Total	1-2 mm	12	1	mg/kg - dry	SW6020
SS-13	08-Sep-15	H15090206-045	Natural Sample	Vanadium, Total	1-2 mm	14	1	mg/kg - dry	SW6020
SS-14	08-Sep-15	H15090206-048	Natural Sample	Vanadium, Total	1-2 mm	13	1	mg/kg - dry	SW6020
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Vanadium, Total	1-2 mm	16	1	mg/kg - dry	SW6020
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Vanadium, Total	1-2 mm	23	1	mg/kg - dry	SW6020
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Vanadium, Total	1-2 mm	21	1	mg/kg - dry	SW6020
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Vanadium, Total	1-2 mm	20	1	mg/kg - dry	SW6020
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Vanadium, Total	1-2 mm	15	1	mg/kg - dry	SW6020
SS-19	08-Sep-15	H15090206-066	Natural Sample	Vanadium, Total	1-2 mm	12	1	mg/kg - dry	SW6020
SS-10A	09-Sep-15	H15090206-033	Duplicate	Vanadium, Total	1-2 mm	14	1	mg/kg - dry	SW6020
SS-01	04-Dec-15	H15120092-006	Natural Sample	Vanadium, Total	1-2 mm	12	1	mg/kg - dry	SW6020
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Vanadium, Total	1-2 mm	20	1	mg/kg - dry	SW6020
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Vanadium, Total	1-2 mm	15	1	mg/kg - dry	SW6020
SS-07	04-Dec-15	H15120093-024	Natural Sample	Vanadium, Total	1-2 mm	18	1	mg/kg - dry	SW6020
SS-08	04-Dec-15	H15120093-027	Natural Sample	Vanadium, Total	1-2 mm	11	1	mg/kg - dry	SW6020
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Vanadium, Total	1-2 mm	12	1	mg/kg - dry	SW6020
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Vanadium, Total	1-2 mm	8	1	mg/kg - dry	SW6020
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Vanadium, Total	1-2 mm	11	1	mg/kg - dry	SW6020
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Vanadium, Total	1-2 mm	15	1	mg/kg - dry	SW6020
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Vanadium, Total	1-2 mm	16	1	mg/kg - dry	SW6020
SS-10A	27-Mar-15	H15030394-029	Duplicate	Zinc, Total	<0.065 mm	1210	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-032	Duplicate	Zinc, Total	<0.065 mm	1990	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-052	Duplicate	Zinc, Total	<0.065 mm	2240	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-022	Duplicate	Zinc, Total	<0.065 mm	2100	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-049	Duplicate	Zinc, Total	<0.065 mm	1440	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-034	Duplicate	Zinc, Total	<0.065 mm	1670	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-006	Natural Sample	Zinc, Total	<0.065 mm	462	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-009	Natural Sample	Zinc, Total	<0.065 mm	2920	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-017	Natural Sample	Zinc, Total	<0.065 mm	2050	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-020	Natural Sample	Zinc, Total	<0.065 mm	2010	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-023	Natural Sample	Zinc, Total	<0.065 mm	1910	5	mg/kg - dry	SW6010B

SS-10A	27-Mar-15	H15030394-026	Natural Sample	Zinc, Total	<0.065 mm	1490	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-035	Natural Sample	Zinc, Total	<0.065 mm	1540	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-038	Natural Sample	Zinc, Total	<0.065 mm	1480	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-041	Natural Sample	Zinc, Total	<0.065 mm	1150	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-044	Natural Sample	Zinc, Total	<0.065 mm	1890	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-047	Natural Sample	Zinc, Total	<0.065 mm	1530	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-050	Natural Sample	Zinc, Total	<0.065 mm	4850	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-012	Natural Sample	Zinc, Total	<0.065 mm	112	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-053	Natural Sample	Zinc, Total	<0.065 mm	2990	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-056	Natural Sample	Zinc, Total	<0.065 mm	1500	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-059	Natural Sample	Zinc, Total	<0.065 mm	1930	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-062	Natural Sample	Zinc, Total	<0.065 mm	15000	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-004	Natural Sample	Zinc, Total	<0.065 mm	457	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-007	Natural Sample	Zinc, Total	<0.065 mm	3100	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-019	Natural Sample	Zinc, Total	<0.065 mm	2000	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-025	Natural Sample	Zinc, Total	<0.065 mm	2530	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-028	Natural Sample	Zinc, Total	<0.065 mm	2460	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-031	Natural Sample	Zinc, Total	<0.065 mm	1450	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-034	Natural Sample	Zinc, Total	<0.065 mm	1790	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-037	Natural Sample	Zinc, Total	<0.065 mm	1420	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-040	Natural Sample	Zinc, Total	<0.065 mm	1370	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-043	Natural Sample	Zinc, Total	<0.065 mm	1960	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-046	Natural Sample	Zinc, Total	<0.065 mm	1770	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-049	Natural Sample	Zinc, Total	<0.065 mm	2190	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-010	Natural Sample	Zinc, Total	<0.065 mm	144	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Zinc, Total	<0.065 mm	1800	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-058	Natural Sample	Zinc, Total	<0.065 mm	2350	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-061	Natural Sample	Zinc, Total	<0.065 mm	1600	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-064	Natural Sample	Zinc, Total	<0.065 mm	818	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-004	Natural Sample	Zinc, Total	<0.065 mm	421	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-007	Natural Sample	Zinc, Total	<0.065 mm	4640	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-019	Natural Sample	Zinc, Total	<0.065 mm	2350	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-022	Natural Sample	Zinc, Total	<0.065 mm	3270	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-025	Natural Sample	Zinc, Total	<0.065 mm	1740	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-028	Natural Sample	Zinc, Total	<0.065 mm	1580	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-034	Natural Sample	Zinc, Total	<0.065 mm	1570	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-037	Natural Sample	Zinc, Total	<0.065 mm	1700	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-040	Natural Sample	Zinc, Total	<0.065 mm	1620	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-043	Natural Sample	Zinc, Total	<0.065 mm	1840	5	mg/kg - dry	SW6010B

SS-14	08-Sep-15	H15090206-046	Natural Sample	Zinc, Total	<0.065 mm	1760	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-052	Natural Sample	Zinc, Total	<0.065 mm	4120	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-010	Natural Sample	Zinc, Total	<0.065 mm	176	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-055	Natural Sample	Zinc, Total	<0.065 mm	3120	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-058	Natural Sample	Zinc, Total	<0.065 mm	1670	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-061	Natural Sample	Zinc, Total	<0.065 mm	2440	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-064	Natural Sample	Zinc, Total	<0.065 mm	2780	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-031	Duplicate	Zinc, Total	<0.065 mm	1290	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-004	Natural Sample	Zinc, Total	<0.065 mm	381	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-007	Natural Sample	Zinc, Total	<0.065 mm	2700	5	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-019	Natural Sample	Zinc, Total	<0.065 mm	1800	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-022	Natural Sample	Zinc, Total	<0.065 mm	5950	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-025	Natural Sample	Zinc, Total	<0.065 mm	2030	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-028	Natural Sample	Zinc, Total	<0.065 mm	610	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-031	Natural Sample	Zinc, Total	<0.065 mm	1750	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-037	Natural Sample	Zinc, Total	<0.065 mm	2080	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-040	Natural Sample	Zinc, Total	<0.065 mm	1360	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-043	Natural Sample	Zinc, Total	<0.065 mm	1690	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-030	Duplicate	Zinc, Total	0.065-1 mm	616	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-033	Duplicate	Zinc, Total	0.065-1 mm	557	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-053	Duplicate	Zinc, Total	0.065-1 mm	708	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-023	Duplicate	Zinc, Total	0.065-1 mm	643	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-050	Duplicate	Zinc, Total	0.065-1 mm	180	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-035	Duplicate	Zinc, Total	0.065-1 mm	695	5	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-007	Natural Sample	Zinc, Total	0.065-1 mm	128	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-010	Natural Sample	Zinc, Total	0.065-1 mm	1260	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-018	Natural Sample	Zinc, Total	0.065-1 mm	723	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-021	Natural Sample	Zinc, Total	0.065-1 mm	867	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-024	Natural Sample	Zinc, Total	0.065-1 mm	619	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-027	Natural Sample	Zinc, Total	0.065-1 mm	453	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-036	Natural Sample	Zinc, Total	0.065-1 mm	471	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-039	Natural Sample	Zinc, Total	0.065-1 mm	210	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-042	Natural Sample	Zinc, Total	0.065-1 mm	73	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-045	Natural Sample	Zinc, Total	0.065-1 mm	169	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-048	Natural Sample	Zinc, Total	0.065-1 mm	348	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-051	Natural Sample	Zinc, Total	0.065-1 mm	2520	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-013	Natural Sample	Zinc, Total	0.065-1 mm	59	10	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-054	Natural Sample	Zinc, Total	0.065-1 mm	539	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-057	Natural Sample	Zinc, Total	0.065-1 mm	473	5	mg/kg - dry	SW6010B

SS-17D	26-Mar-15	H15030394-060	Natural Sample	Zinc, Total	0.065-1 mm	287	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-063	Natural Sample	Zinc, Total	0.065-1 mm	778	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-005	Natural Sample	Zinc, Total	0.065-1 mm	133	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-008	Natural Sample	Zinc, Total	0.065-1 mm	1420	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-020	Natural Sample	Zinc, Total	0.065-1 mm	622	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-026	Natural Sample	Zinc, Total	0.065-1 mm	777	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-029	Natural Sample	Zinc, Total	0.065-1 mm	391	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-032	Natural Sample	Zinc, Total	0.065-1 mm	481	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-035	Natural Sample	Zinc, Total	0.065-1 mm	218	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-038	Natural Sample	Zinc, Total	0.065-1 mm	124	5	mg/kg - dry	SW6010B
SS-11D	15-May-15	H15050235-041	Natural Sample	Zinc, Total	0.065-1 mm	93	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-044	Natural Sample	Zinc, Total	0.065-1 mm	442	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-047	Natural Sample	Zinc, Total	0.065-1 mm	223	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-050	Natural Sample	Zinc, Total	0.065-1 mm	1860	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-011	Natural Sample	Zinc, Total	0.065-1 mm	64	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-056	Natural Sample	Zinc, Total	0.065-1 mm	460	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-059	Natural Sample	Zinc, Total	0.065-1 mm	361	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-062	Natural Sample	Zinc, Total	0.065-1 mm	309	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-065	Natural Sample	Zinc, Total	0.065-1 mm	226	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-005	Natural Sample	Zinc, Total	0.065-1 mm	257	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-008	Natural Sample	Zinc, Total	0.065-1 mm	1290	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-020	Natural Sample	Zinc, Total	0.065-1 mm	337	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-023	Natural Sample	Zinc, Total	0.065-1 mm	550	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-026	Natural Sample	Zinc, Total	0.065-1 mm	374	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-029	Natural Sample	Zinc, Total	0.065-1 mm	298	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-035	Natural Sample	Zinc, Total	0.065-1 mm	235	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-038	Natural Sample	Zinc, Total	0.065-1 mm	151	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-041	Natural Sample	Zinc, Total	0.065-1 mm	93	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-044	Natural Sample	Zinc, Total	0.065-1 mm	304	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-047	Natural Sample	Zinc, Total	0.065-1 mm	200	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-053	Natural Sample	Zinc, Total	0.065-1 mm	840	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-011	Natural Sample	Zinc, Total	0.065-1 mm	36	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-056	Natural Sample	Zinc, Total	0.065-1 mm	1210	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-059	Natural Sample	Zinc, Total	0.065-1 mm	483	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-062	Natural Sample	Zinc, Total	0.065-1 mm	357	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-065	Natural Sample	Zinc, Total	0.065-1 mm	253	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-032	Duplicate	Zinc, Total	0.065-1 mm	196	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-005	Natural Sample	Zinc, Total	0.065-1 mm	91	5	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-008	Natural Sample	Zinc, Total	0.065-1 mm	1180	5	mg/kg - dry	SW6010B

SS-06G	04-Dec-15	H15120093-020	Natural Sample	Zinc, Total	0.065-1 mm	473	5	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-023	Natural Sample	Zinc, Total	0.065-1 mm	654	5	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-026	Natural Sample	Zinc, Total	0.065-1 mm	384	5	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Zinc, Total	0.065-1 mm	188	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-032	Natural Sample	Zinc, Total	0.065-1 mm	459	5	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-038	Natural Sample	Zinc, Total	0.065-1 mm	335	5	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-041	Natural Sample	Zinc, Total	0.065-1 mm	226	5	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-044	Natural Sample	Zinc, Total	0.065-1 mm	368	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-031	Duplicate	Zinc, Total	1-2 mm	208	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-034	Duplicate	Zinc, Total	1-2 mm	284	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-054	Duplicate	Zinc, Total	1-2 mm	730	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-024	Duplicate	Zinc, Total	1-2 mm	212	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-051	Duplicate	Zinc, Total	1-2 mm	162	5	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-036	Duplicate	Zinc, Total	1-2 mm	114	20	mg/kg - dry	SW6010B
SS-01	27-Mar-15	H15030393-008	Natural Sample	Zinc, Total	1-2 mm	36	5	mg/kg - dry	SW6010B
SS-05A	27-Mar-15	H15030393-011	Natural Sample	Zinc, Total	1-2 mm	448	5	mg/kg - dry	SW6010B
SS-06G	27-Mar-15	H15030394-019	Natural Sample	Zinc, Total	1-2 mm	246	5	mg/kg - dry	SW6010B
SS-07	27-Mar-15	H15030394-022	Natural Sample	Zinc, Total	1-2 mm	186	5	mg/kg - dry	SW6010B
SS-08	27-Mar-15	H15030394-025	Natural Sample	Zinc, Total	1-2 mm	355	5	mg/kg - dry	SW6010B
SS-10A	27-Mar-15	H15030394-028	Natural Sample	Zinc, Total	1-2 mm	462	5	mg/kg - dry	SW6010B
SS-10B	27-Mar-15	H15030394-037	Natural Sample	Zinc, Total	1-2 mm	121	5	mg/kg - dry	SW6010B
SS-11C	27-Mar-15	H15030394-040	Natural Sample	Zinc, Total	1-2 mm	105	5	mg/kg - dry	SW6010B
SS-11D	27-Mar-15	H15030394-043	Natural Sample	Zinc, Total	1-2 mm	70	5	mg/kg - dry	SW6010B
SS-13	26-Mar-15	H15030394-046	Natural Sample	Zinc, Total	1-2 mm	95	5	mg/kg - dry	SW6010B
SS-14	26-Mar-15	H15030394-049	Natural Sample	Zinc, Total	1-2 mm	120	5	mg/kg - dry	SW6010B
SS-15A	26-Mar-15	H15030394-052	Natural Sample	Zinc, Total	1-2 mm	1840	5	mg/kg - dry	SW6010B
SS-15G	26-Mar-15	H15030393-014	Natural Sample	Zinc, Total	1-2 mm	96	5	mg/kg - dry	SW6010B
SS-15B	26-Mar-15	H15030394-055	Natural Sample	Zinc, Total	1-2 mm	212	5	mg/kg - dry	SW6010B
SS-16B	26-Mar-15	H15030394-058	Natural Sample	Zinc, Total	1-2 mm	155	5	mg/kg - dry	SW6010B
SS-17D	26-Mar-15	H15030394-061	Natural Sample	Zinc, Total	1-2 mm	222	5	mg/kg - dry	SW6010B
SS-19	26-Mar-15	H15030394-064	Natural Sample	Zinc, Total	1-2 mm	458	5	mg/kg - dry	SW6010B
SS-01	15-May-15	H15050234-006	Natural Sample	Zinc, Total	1-2 mm	130	5	mg/kg - dry	SW6010B
SS-05A	15-May-15	H15050234-009	Natural Sample	Zinc, Total	1-2 mm	875	5	mg/kg - dry	SW6010B
SS-06G	15-May-15	H15050235-021	Natural Sample	Zinc, Total	1-2 mm	216	5	mg/kg - dry	SW6010B
SS-07	15-May-15	H15050235-027	Natural Sample	Zinc, Total	1-2 mm	1570	5	mg/kg - dry	SW6010B
SS-08	15-May-15	H15050235-030	Natural Sample	Zinc, Total	1-2 mm	674	5	mg/kg - dry	SW6010B
SS-10A	15-May-15	H15050235-033	Natural Sample	Zinc, Total	1-2 mm	363	5	mg/kg - dry	SW6010B
SS-10B	15-May-15	H15050235-036	Natural Sample	Zinc, Total	1-2 mm	109	5	mg/kg - dry	SW6010B
SS-11C	15-May-15	H15050235-039	Natural Sample	Zinc, Total	1-2 mm	72	5	mg/kg - dry	SW6010B

SS-11D	15-May-15	H15050235-042	Natural Sample	Zinc, Total	1-2 mm	116	5	mg/kg - dry	SW6010B
SS-13	14-May-15	H15050235-045	Natural Sample	Zinc, Total	1-2 mm	156	5	mg/kg - dry	SW6010B
SS-14	14-May-15	H15050235-048	Natural Sample	Zinc, Total	1-2 mm	149	5	mg/kg - dry	SW6010B
SS-15A	14-May-15	H15050235-051	Natural Sample	Zinc, Total	1-2 mm	505	5	mg/kg - dry	SW6010B
SS-15G	14-May-15	H15050234-012	Natural Sample	Zinc, Total	1-2 mm	121	5	mg/kg - dry	SW6010B
SS-15B	14-May-15	H15050235-057	Natural Sample	Zinc, Total	1-2 mm	388	5	mg/kg - dry	SW6010B
SS-16B	14-May-15	H15050235-060	Natural Sample	Zinc, Total	1-2 mm	210	5	mg/kg - dry	SW6010B
SS-17D	14-May-15	H15050235-063	Natural Sample	Zinc, Total	1-2 mm	341	5	mg/kg - dry	SW6010B
SS-19	14-May-15	H15050235-066	Natural Sample	Zinc, Total	1-2 mm	121	5	mg/kg - dry	SW6010B
SS-01	09-Sep-15	H15090199-006	Natural Sample	Zinc, Total	1-2 mm	97	5	mg/kg - dry	SW6010B
SS-05A	09-Sep-15	H15090199-009	Natural Sample	Zinc, Total	1-2 mm	703	5	mg/kg - dry	SW6010B
SS-06G	09-Sep-15	H15090206-021	Natural Sample	Zinc, Total	1-2 mm	198	5	mg/kg - dry	SW6010B
SS-07	09-Sep-15	H15090206-024	Natural Sample	Zinc, Total	1-2 mm	348	5	mg/kg - dry	SW6010B
SS-08	09-Sep-15	H15090206-027	Natural Sample	Zinc, Total	1-2 mm	187	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-030	Natural Sample	Zinc, Total	1-2 mm	121	5	mg/kg - dry	SW6010B
SS-10B	09-Sep-15	H15090206-036	Natural Sample	Zinc, Total	1-2 mm	127	5	mg/kg - dry	SW6010B
SS-11C	09-Sep-15	H15090206-039	Natural Sample	Zinc, Total	1-2 mm	86	5	mg/kg - dry	SW6010B
SS-11D	09-Sep-15	H15090206-042	Natural Sample	Zinc, Total	1-2 mm	100	5	mg/kg - dry	SW6010B
SS-13	08-Sep-15	H15090206-045	Natural Sample	Zinc, Total	1-2 mm	132	5	mg/kg - dry	SW6010B
SS-14	08-Sep-15	H15090206-048	Natural Sample	Zinc, Total	1-2 mm	127	5	mg/kg - dry	SW6010B
SS-15A	08-Sep-15	H15090206-054	Natural Sample	Zinc, Total	1-2 mm	630	5	mg/kg - dry	SW6010B
SS-15G	08-Sep-15	H15090199-012	Natural Sample	Zinc, Total	1-2 mm	29	5	mg/kg - dry	SW6010B
SS-15B	08-Sep-15	H15090206-057	Natural Sample	Zinc, Total	1-2 mm	232	5	mg/kg - dry	SW6010B
SS-16B	08-Sep-15	H15090206-060	Natural Sample	Zinc, Total	1-2 mm	256	5	mg/kg - dry	SW6010B
SS-17D	08-Sep-15	H15090206-063	Natural Sample	Zinc, Total	1-2 mm	183	5	mg/kg - dry	SW6010B
SS-19	08-Sep-15	H15090206-066	Natural Sample	Zinc, Total	1-2 mm	107	5	mg/kg - dry	SW6010B
SS-10A	09-Sep-15	H15090206-033	Duplicate	Zinc, Total	1-2 mm	94	5	mg/kg - dry	SW6010B
SS-01	04-Dec-15	H15120092-006	Natural Sample	Zinc, Total	1-2 mm	43	10	mg/kg - dry	SW6010B
SS-05A	04-Dec-15	H15120092-009	Natural Sample	Zinc, Total	1-2 mm	740	10	mg/kg - dry	SW6010B
SS-06G	04-Dec-15	H15120093-021	Natural Sample	Zinc, Total	1-2 mm	313	10	mg/kg - dry	SW6010B
SS-07	04-Dec-15	H15120093-024	Natural Sample	Zinc, Total	1-2 mm	334	10	mg/kg - dry	SW6010B
SS-08	04-Dec-15	H15120093-027	Natural Sample	Zinc, Total	1-2 mm	230	10	mg/kg - dry	SW6010B
SS-10A	04-Dec-15	H15120093-029	Natural Sample	Zinc, Total	1-2 mm	76	10	mg/kg - dry	SW6010B
SS-10B	04-Dec-15	H15120093-033	Natural Sample	Zinc, Total	1-2 mm	230	20	mg/kg - dry	SW6010B
SS-11C	04-Dec-15	H15120093-039	Natural Sample	Zinc, Total	1-2 mm	88	10	mg/kg - dry	SW6010B
SS-11D	04-Dec-15	H15120093-042	Natural Sample	Zinc, Total	1-2 mm	121	10	mg/kg - dry	SW6010B
SS-17D	03-Dec-15	H15120093-045	Natural Sample	Zinc, Total	1-2 mm	177	10	mg/kg - dry	SW6010B

ND Not detected at analytical reporting limit.

APPENDIX E

GROUNDWATER DATA

Table E1. Groundwater analyte concentrations in the Streamside Tailings Operable Unit, 2015.

Site	Type	Lab ID	Date	Parameter	Result	Reporting Limit	Unit	Method
MW-2D	Natural Sample	H15050137-016	5/7/2015	Alkalinity, Total as CaCO3	150	4	mg/L	A2320 B
LYP-07	Natural Sample	H15050137-015	5/7/2015	Alkalinity, Total as CaCO3	170	4	mg/L	A2320 B
	Field Blank	H15050137-014	5/7/2015	Alkalinity, Total as CaCO3	ND	4	mg/L	A2320 B
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Alkalinity, Total as CaCO3	120	4	mg/L	A2320 B
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Alkalinity, Total as CaCO3	120	4	mg/L	A2320 B
MW-2C	Natural Sample	H15050137-011	5/7/2015	Alkalinity, Total as CaCO3	100	4	mg/L	A2320 B
MW-2B	Natural Sample	H15050137-010	5/7/2015	Alkalinity, Total as CaCO3	82	4	mg/L	A2320 B
MW-2A	Natural Sample	H15050137-009	5/7/2015	Alkalinity, Total as CaCO3	120	4	mg/L	A2320 B
MW-2B	Natural Sample	H15090363-015	9/15/2015	Alkalinity, Total as CaCO3	95	4	mg/L	A2320 B
MW-2C	Natural Sample	H15090363-014	9/15/2015	Alkalinity, Total as CaCO3	110	4	mg/L	A2320 B
MW-2D	Natural Sample	H15090363-013	9/15/2015	Alkalinity, Total as CaCO3	160	4	mg/L	A2320 B
MW-2A	Natural Sample	H15090363-045	9/15/2015	Alkalinity, Total as CaCO3	130	4	mg/L	A2320 B
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Alkalinity, Total as CaCO3	130	4	mg/L	A2320 B
LYP-07	Field Blank	H15090363-047	9/15/2015	Alkalinity, Total as CaCO3	ND	4	mg/L	A2320 B
LYP-07	Natural Sample	H15090363-016	9/15/2015	Alkalinity, Total as CaCO3	180	4	mg/L	A2320 B
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Alkalinity, Total as CaCO3	120	4	mg/L	A2320 B
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Alkalinity, Total as CaCO3	290	4	mg/L	A2320 B
P-06A	Natural Sample	H15090363-044	9/15/2015	Alkalinity, Total as CaCO3	130	4	mg/L	A2320 B
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Alkalinity, Total as CaCO3	140	4	mg/L	A2320 B
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Alkalinity, Total as CaCO3	140	4	mg/L	A2320 B
MW-01	Natural Sample	H15090363-036	9/16/2015	Alkalinity, Total as CaCO3	180	4	mg/L	A2320 B
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Alkalinity, Total as CaCO3	120	4	mg/L	A2320 B
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Alkalinity, Total as CaCO3	ND	4	mg/L	A2320 B
P-114	Natural Sample	H15090363-026	9/16/2015	Alkalinity, Total as CaCO3	200	4	mg/L	A2320 B
P-37A	Natural Sample	H15090363-038	9/16/2015	Alkalinity, Total as CaCO3	180	4	mg/L	A2320 B
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Alkalinity, Total as CaCO3	270	4	mg/L	A2320 B
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Alkalinity, Total as CaCO3	92	4	mg/L	A2320 B
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Alkalinity, Total as CaCO3	130	4	mg/L	A2320 B
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Alkalinity, Total as CaCO3	130	4	mg/L	A2320 B
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Alkalinity, Total as CaCO3	100	4	mg/L	A2320 B
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Alkalinity, Total as CaCO3	18	4	mg/L	A2320 B
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Alkalinity, Total as CaCO3	24	4	mg/L	A2320 B
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Alkalinity, Total as CaCO3	25	4	mg/L	A2320 B
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Alkalinity, Total as CaCO3	4	4	mg/L	A2320 B
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Alkalinity, Total as CaCO3	160	4	mg/L	A2320 B
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Alkalinity, Total as CaCO3	260	4	mg/L	A2320 B
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Alkalinity, Total as CaCO3	220	4	mg/L	A2320 B
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Alkalinity, Total as CaCO3	ND	4	mg/L	A2320 B
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Alkalinity, Total as CaCO3	93	4	mg/L	A2320 B
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Alkalinity, Total as CaCO3	36	4	mg/L	A2320 B
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Alkalinity, Total as CaCO3	36	4	mg/L	A2320 B
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Alkalinity, Total as CaCO3	100	4	mg/L	A2320 B
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Alkalinity, Total as CaCO3	46	4	mg/L	A2320 B
P-39R	Natural Sample	H15090363-040	9/17/2015	Alkalinity, Total as CaCO3	340	4	mg/L	A2320 B

P-58A	Field Blank	H15090363-042	9/17/2015	Alkalinity, Total as CaCO3	ND	4	mg/L	A2320 B
P-58A	Natural Sample	H15090363-037	9/17/2015	Alkalinity, Total as CaCO3	29	4	mg/L	A2320 B
MW-10	Natural Sample	H15090363-030	9/17/2015	Alkalinity, Total as CaCO3	13	4	mg/L	A2320 B
MW-2D	Natural Sample	H15050137-016	5/7/2015	Aluminum, Dissolved	0.034	0.009	mg/L	E200.7
LYP-07	Natural Sample	H15050137-015	5/7/2015	Aluminum, Dissolved	0.014	0.009	mg/L	E200.7
	Field Blank	H15050137-014	5/7/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
MW-2C	Natural Sample	H15050137-011	5/7/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
MW-2B	Natural Sample	H15050137-010	5/7/2015	Aluminum, Dissolved	0.068	0.009	mg/L	E200.7
MW-2A	Natural Sample	H15050137-009	5/7/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
MW-2B	Natural Sample	H15090363-015	9/15/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
MW-2C	Natural Sample	H15090363-014	9/15/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
MW-2D	Natural Sample	H15090363-013	9/15/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
MW-2A	Natural Sample	H15090363-045	9/15/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYP-07	Field Blank	H15090363-047	9/15/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYP-07	Natural Sample	H15090363-016	9/15/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
P-06A	Natural Sample	H15090363-044	9/15/2015	Aluminum, Dissolved	0.297	0.009	mg/L	E200.7
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
MW-01	Natural Sample	H15090363-036	9/16/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Aluminum, Dissolved	0.364	0.009	mg/L	E200.7
P-114	Natural Sample	H15090363-026	9/16/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
P-37A	Natural Sample	H15090363-038	9/16/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Aluminum, Dissolved	0.041	0.009	mg/L	E200.7
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Aluminum, Dissolved	0.11	0.009	mg/L	E200.7
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Aluminum, Dissolved	0.117	0.009	mg/L	E200.7
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Aluminum, Dissolved	0.396	0.009	mg/L	E200.7
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Aluminum, Dissolved	0.023	0.009	mg/L	E200.7
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Aluminum, Dissolved	0.014	0.009	mg/L	E200.7
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Aluminum, Dissolved	0.014	0.009	mg/L	E200.7
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Aluminum, Dissolved	0.049	0.009	mg/L	E200.7
P-39R	Natural Sample	H15090363-040	9/17/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
P-58A	Field Blank	H15090363-042	9/17/2015	Aluminum, Dissolved	ND	0.009	mg/L	E200.7

P-58A	Natural Sample	H15090363-037	9/17/2015	Aluminum, Dissolved	0.501	0.009	mg/L	E200.7
MW-10	Natural Sample	H15090363-030	9/17/2015	Aluminum, Dissolved	0.24	0.009	mg/L	E200.7
MW-2D	Natural Sample	H15050137-016	5/7/2015	Antimony, Dissolved	0.001	0.0005	mg/L	E200.8
LYP-07	Natural Sample	H15050137-015	5/7/2015	Antimony, Dissolved	0.0005	0.0005	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
MW-2A	Natural Sample	H15050137-009	5/7/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
MW-2B	Natural Sample	H15090363-015	9/15/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
MW-2C	Natural Sample	H15090363-014	9/15/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
LYP-07	Natural Sample	H15090363-016	9/15/2015	Antimony, Dissolved	0.0006	0.0005	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
P-06A	Natural Sample	H15090363-044	9/15/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
MW-01	Natural Sample	H15090363-036	9/16/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
P-114	Natural Sample	H15090363-026	9/16/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
P-37A	Natural Sample	H15090363-038	9/16/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Antimony, Dissolved	0.0028	0.0005	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Antimony, Dissolved	0.0008	0.0005	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Antimony, Dissolved	0.0017	0.0005	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Antimony, Dissolved	0.0027	0.0005	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8

MW-10	Natural Sample	H15090363-030	9/17/2015	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
MW-2D	Natural Sample	H15050137-016	5/7/2015	Arsenic, Dissolved	0.008	0.001	mg/L	E200.8
LYP-07	Natural Sample	H15050137-015	5/7/2015	Arsenic, Dissolved	0.001	0.001	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Arsenic, Dissolved	ND	0.001	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Arsenic, Dissolved	0.007	0.001	mg/L	E200.8
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Arsenic, Dissolved	0.007	0.001	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Arsenic, Dissolved	0.01	0.001	mg/L	E200.8
MW-2A	Natural Sample	H15050137-009	5/7/2015	Arsenic, Dissolved	0.011	0.001	mg/L	E200.8
MW-2B	Natural Sample	H15090363-015	9/15/2015	Arsenic, Dissolved	0.01	0.001	mg/L	E200.8
MW-2C	Natural Sample	H15090363-014	9/15/2015	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Arsenic, Dissolved	0.01	0.001	mg/L	E200.8
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Arsenic, Dissolved	0.011	0.001	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Arsenic, Dissolved	ND	0.001	mg/L	E200.8
LYP-07	Natural Sample	H15090363-016	9/15/2015	Arsenic, Dissolved	0.002	0.001	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Arsenic, Dissolved	0.008	0.001	mg/L	E200.8
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Arsenic, Dissolved	0.002	0.001	mg/L	E200.8
P-06A	Natural Sample	H15090363-044	9/15/2015	Arsenic, Dissolved	0.002	0.001	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
MW-01	Natural Sample	H15090363-036	9/16/2015	Arsenic, Dissolved	0.008	0.001	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Arsenic, Dissolved	0.011	0.001	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Arsenic, Dissolved	ND	0.001	mg/L	E200.8
P-114	Natural Sample	H15090363-026	9/16/2015	Arsenic, Dissolved	0.003	0.001	mg/L	E200.8
P-37A	Natural Sample	H15090363-038	9/16/2015	Arsenic, Dissolved	0.001	0.001	mg/L	E200.8
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Arsenic, Dissolved	0.034	0.001	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Arsenic, Dissolved	0.001	0.001	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Arsenic, Dissolved	0.002	0.001	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Arsenic, Dissolved	0.037	0.001	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Arsenic, Dissolved	0.008	0.001	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Arsenic, Dissolved	0.002	0.001	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Arsenic, Dissolved	0.002	0.001	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Arsenic, Dissolved	0.002	0.001	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Arsenic, Dissolved	ND	0.001	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Arsenic, Dissolved	0.002	0.001	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Arsenic, Dissolved	0.008	0.001	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Arsenic, Dissolved	ND	0.001	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Arsenic, Dissolved	ND	0.001	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Arsenic, Dissolved	0.002	0.001	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Arsenic, Dissolved	0.002	0.001	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Arsenic, Dissolved	0.002	0.001	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Arsenic, Dissolved	0.002	0.001	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Arsenic, Dissolved	0.011	0.001	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Arsenic, Dissolved	ND	0.001	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Arsenic, Dissolved	ND	0.001	mg/L	E200.8
MW-10	Natural Sample	H15090363-030	9/17/2015	Arsenic, Dissolved	0.004	0.001	mg/L	E200.8

MW-2D	Natural Sample	H15050137-016	5/7/2015	Barium, Dissolved	0.041	0.003	mg/L	E200.8
LYP-07	Natural Sample	H15050137-015	5/7/2015	Barium, Dissolved	0.055	0.003	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Barium, Dissolved	ND	0.003	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Barium, Dissolved	0.03	0.003	mg/L	E200.8
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Barium, Dissolved	0.035	0.003	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Barium, Dissolved	0.02	0.003	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Barium, Dissolved	0.033	0.003	mg/L	E200.8
MW-2A	Natural Sample	H15050137-009	5/7/2015	Barium, Dissolved	0.014	0.003	mg/L	E200.8
MW-2B	Natural Sample	H15090363-015	9/15/2015	Barium, Dissolved	0.032	0.003	mg/L	E200.8
MW-2C	Natural Sample	H15090363-014	9/15/2015	Barium, Dissolved	0.02	0.003	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Barium, Dissolved	0.044	0.003	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Barium, Dissolved	0.013	0.003	mg/L	E200.8
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Barium, Dissolved	0.013	0.003	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Barium, Dissolved	ND	0.003	mg/L	E200.8
LYP-07	Natural Sample	H15090363-016	9/15/2015	Barium, Dissolved	0.057	0.003	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Barium, Dissolved	0.032	0.003	mg/L	E200.8
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Barium, Dissolved	0.023	0.003	mg/L	E200.8
P-06A	Natural Sample	H15090363-044	9/15/2015	Barium, Dissolved	0.028	0.003	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Barium, Dissolved	0.03	0.003	mg/L	E200.8
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Barium, Dissolved	0.072	0.003	mg/L	E200.8
MW-01	Natural Sample	H15090363-036	9/16/2015	Barium, Dissolved	0.02	0.003	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Barium, Dissolved	0.044	0.003	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Barium, Dissolved	0.013	0.003	mg/L	E200.8
P-114	Natural Sample	H15090363-026	9/16/2015	Barium, Dissolved	0.025	0.003	mg/L	E200.8
P-37A	Natural Sample	H15090363-038	9/16/2015	Barium, Dissolved	0.08	0.003	mg/L	E200.8
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Barium, Dissolved	0.034	0.003	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Barium, Dissolved	0.04	0.003	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Barium, Dissolved	0.122	0.003	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Barium, Dissolved	0.014	0.003	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Barium, Dissolved	0.037	0.003	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Barium, Dissolved	0.022	0.003	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Barium, Dissolved	0.025	0.003	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Barium, Dissolved	0.026	0.003	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Barium, Dissolved	0.022	0.003	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Barium, Dissolved	0.065	0.003	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Barium, Dissolved	0.032	0.003	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Barium, Dissolved	0.059	0.003	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Barium, Dissolved	ND	0.003	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Barium, Dissolved	0.02	0.003	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Barium, Dissolved	0.038	0.003	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Barium, Dissolved	0.038	0.003	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Barium, Dissolved	0.042	0.003	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Barium, Dissolved	0.03	0.003	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Barium, Dissolved	0.142	0.003	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Barium, Dissolved	ND	0.003	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Barium, Dissolved	0.036	0.003	mg/L	E200.8
MW-10	Natural Sample	H15090363-030	9/17/2015	Barium, Dissolved	0.02	0.003	mg/L	E200.8
MW-2D	Natural Sample	H15050137-016	5/7/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8

LYP-07	Natural Sample	H15050137-015	5/7/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
MW-2A	Natural Sample	H15050137-009	5/7/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
MW-2B	Natural Sample	H15090363-015	9/15/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
MW-2C	Natural Sample	H15090363-014	9/15/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYP-07	Natural Sample	H15090363-016	9/15/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
P-06A	Natural Sample	H15090363-044	9/15/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
MW-01	Natural Sample	H15090363-036	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
P-114	Natural Sample	H15090363-026	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
P-37A	Natural Sample	H15090363-038	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Beryllium, Dissolved	0.0009	0.0008	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
MW-10	Natural Sample	H15090363-030	9/17/2015	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
MW-2D	Natural Sample	H15050137-016	5/7/2015	Bicarbonate Alkalinity as HCO3	190	4	mg/L	A2320 B
LYP-07	Natural Sample	H15050137-015	5/7/2015	Bicarbonate Alkalinity as HCO3	200	4	mg/L	A2320 B

	Field Blank	H15050137-014	5/7/2015	Bicarbonate Alkalinity as HCO3	ND	4	mg/L	A2320 B
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Bicarbonate Alkalinity as HCO3	140	4	mg/L	A2320 B
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Bicarbonate Alkalinity as HCO3	140	4	mg/L	A2320 B
MW-2C	Natural Sample	H15050137-011	5/7/2015	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
MW-2B	Natural Sample	H15050137-010	5/7/2015	Bicarbonate Alkalinity as HCO3	99	4	mg/L	A2320 B
MW-2A	Natural Sample	H15050137-009	5/7/2015	Bicarbonate Alkalinity as HCO3	150	4	mg/L	A2320 B
MW-2B	Natural Sample	H15090363-015	9/15/2015	Bicarbonate Alkalinity as HCO3	120	4	mg/L	A2320 B
MW-2C	Natural Sample	H15090363-014	9/15/2015	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
MW-2D	Natural Sample	H15090363-013	9/15/2015	Bicarbonate Alkalinity as HCO3	190	4	mg/L	A2320 B
MW-2A	Natural Sample	H15090363-045	9/15/2015	Bicarbonate Alkalinity as HCO3	150	4	mg/L	A2320 B
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Bicarbonate Alkalinity as HCO3	150	4	mg/L	A2320 B
LYP-07	Field Blank	H15090363-047	9/15/2015	Bicarbonate Alkalinity as HCO3	ND	4	mg/L	A2320 B
LYP-07	Natural Sample	H15090363-016	9/15/2015	Bicarbonate Alkalinity as HCO3	220	4	mg/L	A2320 B
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Bicarbonate Alkalinity as HCO3	150	4	mg/L	A2320 B
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Bicarbonate Alkalinity as HCO3	350	4	mg/L	A2320 B
P-06A	Natural Sample	H15090363-044	9/15/2015	Bicarbonate Alkalinity as HCO3	160	4	mg/L	A2320 B
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Bicarbonate Alkalinity as HCO3	170	4	mg/L	A2320 B
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Bicarbonate Alkalinity as HCO3	170	4	mg/L	A2320 B
MW-01	Natural Sample	H15090363-036	9/16/2015	Bicarbonate Alkalinity as HCO3	220	4	mg/L	A2320 B
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Bicarbonate Alkalinity as HCO3	150	4	mg/L	A2320 B
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Bicarbonate Alkalinity as HCO3	ND	4	mg/L	A2320 B
P-114	Natural Sample	H15090363-026	9/16/2015	Bicarbonate Alkalinity as HCO3	240	4	mg/L	A2320 B
P-37A	Natural Sample	H15090363-038	9/16/2015	Bicarbonate Alkalinity as HCO3	210	4	mg/L	A2320 B
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Bicarbonate Alkalinity as HCO3	330	4	mg/L	A2320 B
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Bicarbonate Alkalinity as HCO3	150	4	mg/L	A2320 B
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Bicarbonate Alkalinity as HCO3	160	4	mg/L	A2320 B
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Bicarbonate Alkalinity as HCO3	120	4	mg/L	A2320 B
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Bicarbonate Alkalinity as HCO3	21	4	mg/L	A2320 B
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Bicarbonate Alkalinity as HCO3	29	4	mg/L	A2320 B
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Bicarbonate Alkalinity as HCO3	30	4	mg/L	A2320 B
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Bicarbonate Alkalinity as HCO3	5	4	mg/L	A2320 B
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Bicarbonate Alkalinity as HCO3	200	4	mg/L	A2320 B
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Bicarbonate Alkalinity as HCO3	310	4	mg/L	A2320 B
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Bicarbonate Alkalinity as HCO3	270	4	mg/L	A2320 B
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Bicarbonate Alkalinity as HCO3	ND	4	mg/L	A2320 B
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Bicarbonate Alkalinity as HCO3	110	4	mg/L	A2320 B
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Bicarbonate Alkalinity as HCO3	44	4	mg/L	A2320 B
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Bicarbonate Alkalinity as HCO3	43	4	mg/L	A2320 B
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Bicarbonate Alkalinity as HCO3	130	4	mg/L	A2320 B
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Bicarbonate Alkalinity as HCO3	56	4	mg/L	A2320 B
P-39R	Natural Sample	H15090363-040	9/17/2015	Bicarbonate Alkalinity as HCO3	420	4	mg/L	A2320 B
P-58A	Field Blank	H15090363-042	9/17/2015	Bicarbonate Alkalinity as HCO3	ND	4	mg/L	A2320 B
P-58A	Natural Sample	H15090363-037	9/17/2015	Bicarbonate Alkalinity as HCO3	35	4	mg/L	A2320 B
MW-10	Natural Sample	H15090363-030	9/17/2015	Bicarbonate Alkalinity as HCO3	16	4	mg/L	A2320 B
MW-2D	Natural Sample	H15050137-016	5/7/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
LYP-07	Natural Sample	H15050137-015	5/7/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
	Field Blank	H15050137-014	5/7/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7

1GW-1056	Natural Sample	H15050137-013	5/7/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
MW-2C	Natural Sample	H15050137-011	5/7/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
MW-2B	Natural Sample	H15050137-010	5/7/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
MW-2A	Natural Sample	H15050137-009	5/7/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
MW-2B	Natural Sample	H15090363-015	9/15/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
MW-2C	Natural Sample	H15090363-014	9/15/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
MW-2D	Natural Sample	H15090363-013	9/15/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
MW-2A	Natural Sample	H15090363-045	9/15/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
LYP-07	Field Blank	H15090363-047	9/15/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
LYP-07	Natural Sample	H15090363-016	9/15/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Boron, Dissolved	0.1	0.1	mg/L	E200.7
P-06A	Natural Sample	H15090363-044	9/15/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Boron, Dissolved	0.1	0.1	mg/L	E200.7
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
MW-01	Natural Sample	H15090363-036	9/16/2015	Boron, Dissolved	0.1	0.1	mg/L	E200.7
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
P-114	Natural Sample	H15090363-026	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
P-37A	Natural Sample	H15090363-038	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Boron, Dissolved	0.2	0.1	mg/L	E200.7
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
P-39R	Natural Sample	H15090363-040	9/17/2015	Boron, Dissolved	0.3	0.1	mg/L	E200.7
P-58A	Field Blank	H15090363-042	9/17/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
P-58A	Natural Sample	H15090363-037	9/17/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
MW-10	Natural Sample	H15090363-030	9/17/2015	Boron, Dissolved	ND	0.1	mg/L	E200.7
MW-2D	Natural Sample	H15050137-016	5/7/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
LYP-07	Natural Sample	H15050137-015	5/7/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8

1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
MW-2A	Natural Sample	H15050137-009	5/7/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
MW-2B	Natural Sample	H15090363-015	9/15/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
MW-2C	Natural Sample	H15090363-014	9/15/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
LYP-07	Natural Sample	H15090363-016	9/15/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
P-06A	Natural Sample	H15090363-044	9/15/2015	Cadmium, Dissolved	0.00084	0.00003	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Cadmium, Dissolved	0.00278	0.00003	mg/L	E200.8
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
MW-01	Natural Sample	H15090363-036	9/16/2015	Cadmium, Dissolved	0.00068	0.00003	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Cadmium, Dissolved	0.00228	0.00003	mg/L	E200.8
P-114	Natural Sample	H15090363-026	9/16/2015	Cadmium, Dissolved	0.00004	0.00003	mg/L	E200.8
P-37A	Natural Sample	H15090363-038	9/16/2015	Cadmium, Dissolved	0.00344	0.00003	mg/L	E200.8
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Cadmium, Dissolved	0.00796	0.00003	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Cadmium, Dissolved	0.00003	0.00003	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Cadmium, Dissolved	0.0196	0.00003	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Cadmium, Dissolved	0.00126	0.00003	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Cadmium, Dissolved	0.0241	0.00003	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Cadmium, Dissolved	0.024	0.00003	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Cadmium, Dissolved	0.0218	0.00003	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Cadmium, Dissolved	0.00012	0.00003	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Cadmium, Dissolved	0.00004	0.00003	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Cadmium, Dissolved	0.00005	0.00003	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Cadmium, Dissolved	0.00201	0.00003	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Cadmium, Dissolved	0.00041	0.00003	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Cadmium, Dissolved	0.00041	0.00003	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Cadmium, Dissolved	0.00021	0.00003	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Cadmium, Dissolved	0.0279	0.00003	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Cadmium, Dissolved	0.00017	0.00003	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Cadmium, Dissolved	0.006	0.00003	mg/L	E200.8
MW-10	Natural Sample	H15090363-030	9/17/2015	Cadmium, Dissolved	0.00322	0.00003	mg/L	E200.8
MW-2D	Natural Sample	H15050137-016	5/7/2015	Calcium, Dissolved	90	1	mg/L	E200.7
LYP-07	Natural Sample	H15050137-015	5/7/2015	Calcium, Dissolved	78	1	mg/L	E200.7
	Field Blank	H15050137-014	5/7/2015	Calcium, Dissolved	ND	1	mg/L	E200.7
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Calcium, Dissolved	72	1	mg/L	E200.7
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Calcium, Dissolved	72	1	mg/L	E200.7

MW-2C	Natural Sample	H15050137-011	5/7/2015	Calcium, Dissolved	67	1	mg/L	E200.7
MW-2B	Natural Sample	H15050137-010	5/7/2015	Calcium, Dissolved	57	1	mg/L	E200.7
MW-2A	Natural Sample	H15050137-009	5/7/2015	Calcium, Dissolved	86	1	mg/L	E200.7
MW-2B	Natural Sample	H15090363-015	9/15/2015	Calcium, Dissolved	62	1	mg/L	E200.7
MW-2C	Natural Sample	H15090363-014	9/15/2015	Calcium, Dissolved	69	1	mg/L	E200.7
MW-2D	Natural Sample	H15090363-013	9/15/2015	Calcium, Dissolved	93	1	mg/L	E200.7
MW-2A	Natural Sample	H15090363-045	9/15/2015	Calcium, Dissolved	89	1	mg/L	E200.7
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Calcium, Dissolved	86	1	mg/L	E200.7
LYP-07	Field Blank	H15090363-047	9/15/2015	Calcium, Dissolved	ND	1	mg/L	E200.7
LYP-07	Natural Sample	H15090363-016	9/15/2015	Calcium, Dissolved	85	1	mg/L	E200.7
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Calcium, Dissolved	77	1	mg/L	E200.7
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Calcium, Dissolved	104	1	mg/L	E200.7
P-06A	Natural Sample	H15090363-044	9/15/2015	Calcium, Dissolved	72	1	mg/L	E200.7
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Calcium, Dissolved	72	1	mg/L	E200.7
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Calcium, Dissolved	59	1	mg/L	E200.7
MW-01	Natural Sample	H15090363-036	9/16/2015	Calcium, Dissolved	102	1	mg/L	E200.7
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Calcium, Dissolved	35	1	mg/L	E200.7
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Calcium, Dissolved	83	1	mg/L	E200.7
P-114	Natural Sample	H15090363-026	9/16/2015	Calcium, Dissolved	57	1	mg/L	E200.7
P-37A	Natural Sample	H15090363-038	9/16/2015	Calcium, Dissolved	155	1	mg/L	E200.7
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Calcium, Dissolved	37	1	mg/L	E200.7
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Calcium, Dissolved	43	1	mg/L	E200.7
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Calcium, Dissolved	51	1	mg/L	E200.7
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Calcium, Dissolved	14	1	mg/L	E200.7
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Calcium, Dissolved	45	1	mg/L	E200.7
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Calcium, Dissolved	66	1	mg/L	E200.7
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Calcium, Dissolved	32	1	mg/L	E200.7
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Calcium, Dissolved	33	1	mg/L	E200.7
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Calcium, Dissolved	29	1	mg/L	E200.7
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Calcium, Dissolved	91	1	mg/L	E200.7
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Calcium, Dissolved	36	1	mg/L	E200.7
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Calcium, Dissolved	41	1	mg/L	E200.7
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Calcium, Dissolved	ND	1	mg/L	E200.7
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Calcium, Dissolved	41	1	mg/L	E200.7
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Calcium, Dissolved	35	1	mg/L	E200.7
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Calcium, Dissolved	35	1	mg/L	E200.7
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Calcium, Dissolved	46	1	mg/L	E200.7
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Calcium, Dissolved	35	1	mg/L	E200.7
P-39R	Natural Sample	H15090363-040	9/17/2015	Calcium, Dissolved	207	1	mg/L	E200.7
P-58A	Field Blank	H15090363-042	9/17/2015	Calcium, Dissolved	ND	1	mg/L	E200.7
P-58A	Natural Sample	H15090363-037	9/17/2015	Calcium, Dissolved	68	1	mg/L	E200.7
MW-10	Natural Sample	H15090363-030	9/17/2015	Calcium, Dissolved	30	1	mg/L	E200.7
MW-2D	Natural Sample	H15050137-016	5/7/2015	Chloride	24	1	mg/L	E300.0
LYP-07	Natural Sample	H15050137-015	5/7/2015	Chloride	21	1	mg/L	E300.0
	Field Blank	H15050137-014	5/7/2015	Chloride	ND	1	mg/L	E300.0
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Chloride	18	1	mg/L	E300.0
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Chloride	17	1	mg/L	E300.0
MW-2C	Natural Sample	H15050137-011	5/7/2015	Chloride	22	1	mg/L	E300.0

MW-2B	Natural Sample	H15050137-010	5/7/2015	Chloride	21	1	mg/L	E300.0
MW-2A	Natural Sample	H15050137-009	5/7/2015	Chloride	4	1	mg/L	E300.0
MW-2B	Natural Sample	H15090363-015	9/15/2015	Chloride	21	1	mg/L	E300.0
MW-2C	Natural Sample	H15090363-014	9/15/2015	Chloride	23	1	mg/L	E300.0
MW-2D	Natural Sample	H15090363-013	9/15/2015	Chloride	25	1	mg/L	E300.0
MW-2A	Natural Sample	H15090363-045	9/15/2015	Chloride	4	1	mg/L	E300.0
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Chloride	4	1	mg/L	E300.0
LYP-07	Field Blank	H15090363-047	9/15/2015	Chloride	ND	1	mg/L	E300.0
LYP-07	Natural Sample	H15090363-016	9/15/2015	Chloride	24	1	mg/L	E300.0
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Chloride	18	1	mg/L	E300.0
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Chloride	20	1	mg/L	E300.0
P-06A	Natural Sample	H15090363-044	9/15/2015	Chloride	80	1	mg/L	E300.0
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Chloride	14	1	mg/L	E300.0
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Chloride	33	1	mg/L	E300.0
MW-01	Natural Sample	H15090363-036	9/16/2015	Chloride	20	1	mg/L	E300.0
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Chloride	11	1	mg/L	E300.0
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Chloride	51	1	mg/L	E300.0
P-114	Natural Sample	H15090363-026	9/16/2015	Chloride	33	1	mg/L	E300.0
P-37A	Natural Sample	H15090363-038	9/16/2015	Chloride	137	1	mg/L	E300.0
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Chloride	77	1	mg/L	E300.0
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Chloride	46	1	mg/L	E300.0
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Chloride	29	1	mg/L	E300.0
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Chloride	21	1	mg/L	E300.0
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Chloride	34	1	mg/L	E300.0
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Chloride	46	1	mg/L	E300.0
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Chloride	35	1	mg/L	E300.0
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Chloride	35	1	mg/L	E300.0
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Chloride	30	1	mg/L	E300.0
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Chloride	13	1	mg/L	E300.0
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Chloride	1	1	mg/L	E300.0
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Chloride	ND	1	mg/L	E300.0
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Chloride	ND	1	mg/L	E300.0
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Chloride	38	1	mg/L	E300.0
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Chloride	21	1	mg/L	E300.0
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Chloride	21	1	mg/L	E300.0
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Chloride	36	1	mg/L	E300.0
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Chloride	44	1	mg/L	E300.0
P-39R	Natural Sample	H15090363-040	9/17/2015	Chloride	58	1	mg/L	E300.0
P-58A	Field Blank	H15090363-042	9/17/2015	Chloride	ND	1	mg/L	E300.0
P-58A	Natural Sample	H15090363-037	9/17/2015	Chloride	52	1	mg/L	E300.0
MW-10	Natural Sample	H15090363-030	9/17/2015	Chloride	39	1	mg/L	E300.0
MW-2D	Natural Sample	H15050137-016	5/7/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYP-07	Natural Sample	H15050137-015	5/7/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8

MW-2A	Natural Sample	H15050137-009	5/7/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
MW-2B	Natural Sample	H15090363-015	9/15/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
MW-2C	Natural Sample	H15090363-014	9/15/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYP-07	Natural Sample	H15090363-016	9/15/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
P-06A	Natural Sample	H15090363-044	9/15/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
MW-01	Natural Sample	H15090363-036	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
P-114	Natural Sample	H15090363-026	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
P-37A	Natural Sample	H15090363-038	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
MW-10	Natural Sample	H15090363-030	9/17/2015	Chromium, Dissolved	ND	0.01	mg/L	E200.8
MW-2D	Natural Sample	H15050137-016	5/7/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYP-07	Natural Sample	H15050137-015	5/7/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
MW-2A	Natural Sample	H15050137-009	5/7/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8

MW-2B	Natural Sample	H15090363-015	9/15/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
MW-2C	Natural Sample	H15090363-014	9/15/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYP-07	Natural Sample	H15090363-016	9/15/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
P-06A	Natural Sample	H15090363-044	9/15/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
MW-01	Natural Sample	H15090363-036	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Cobalt, Dissolved	0.05	0.01	mg/L	E200.8
P-114	Natural Sample	H15090363-026	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
P-37A	Natural Sample	H15090363-038	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Cobalt, Dissolved	0.01	0.01	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Cobalt, Dissolved	0.02	0.01	mg/L	E200.8
MW-10	Natural Sample	H15090363-030	9/17/2015	Cobalt, Dissolved	0.02	0.01	mg/L	E200.8
MW-2D	Natural Sample	H15050137-016	5/7/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
LYP-07	Natural Sample	H15050137-015	5/7/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Copper, Dissolved	0.001	0.001	mg/L	E200.8
MW-2A	Natural Sample	H15050137-009	5/7/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
MW-2B	Natural Sample	H15090363-015	9/15/2015	Copper, Dissolved	0.002	0.001	mg/L	E200.8

MW-2C	Natural Sample	H15090363-014	9/15/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
LYP-07	Natural Sample	H15090363-016	9/15/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
P-06A	Natural Sample	H15090363-044	9/15/2015	Copper, Dissolved	0.031	0.001	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Copper, Dissolved	0.181	0.001	mg/L	E200.8
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
MW-01	Natural Sample	H15090363-036	9/16/2015	Copper, Dissolved	0.05	0.001	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Copper, Dissolved	0.001	0.001	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Copper, Dissolved	0.045	0.001	mg/L	E200.8
P-114	Natural Sample	H15090363-026	9/16/2015	Copper, Dissolved	0.003	0.001	mg/L	E200.8
P-37A	Natural Sample	H15090363-038	9/16/2015	Copper, Dissolved	0.053	0.001	mg/L	E200.8
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Copper, Dissolved	0.028	0.001	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Copper, Dissolved	0.002	0.001	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Copper, Dissolved	0.003	0.001	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Copper, Dissolved	0.019	0.001	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Copper, Dissolved	0.002	0.001	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Copper, Dissolved	0.133	0.001	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Copper, Dissolved	0.134	0.001	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Copper, Dissolved	1.2	0.005	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Copper, Dissolved	0.001	0.001	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Copper, Dissolved	0.002	0.001	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Copper, Dissolved	0.002	0.001	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Copper, Dissolved	0.003	0.001	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Copper, Dissolved	0.002	0.001	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Copper, Dissolved	0.196	0.001	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Copper, Dissolved	0.037	0.001	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Copper, Dissolved	ND	0.001	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Copper, Dissolved	0.203	0.001	mg/L	E200.8
MW-10	Natural Sample	H15090363-030	9/17/2015	Copper, Dissolved	0.042	0.001	mg/L	E200.8
MW-2D	Natural Sample	H15050137-016	5/7/2015	Hardness as CaCO3	308	1	mg/L	A2340 B
LYP-07	Natural Sample	H15050137-015	5/7/2015	Hardness as CaCO3	258	1	mg/L	A2340 B
	Field Blank	H15050137-014	5/7/2015	Hardness as CaCO3	ND	1	mg/L	A2340 B
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Hardness as CaCO3	242	1	mg/L	A2340 B
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Hardness as CaCO3	242	1	mg/L	A2340 B
MW-2C	Natural Sample	H15050137-011	5/7/2015	Hardness as CaCO3	230	1	mg/L	A2340 B
MW-2B	Natural Sample	H15050137-010	5/7/2015	Hardness as CaCO3	203	1	mg/L	A2340 B
MW-2A	Natural Sample	H15050137-009	5/7/2015	Hardness as CaCO3	270	1	mg/L	A2340 B
MW-2B	Natural Sample	H15090363-015	9/15/2015	Hardness as CaCO3	218	1	mg/L	A2340 B
MW-2C	Natural Sample	H15090363-014	9/15/2015	Hardness as CaCO3	235	1	mg/L	A2340 B

MW-2D	Natural Sample	H15090363-013	9/15/2015	Hardness as CaCO3	314	1	mg/L	A2340 B
MW-2A	Natural Sample	H15090363-045	9/15/2015	Hardness as CaCO3	275	1	mg/L	A2340 B
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Hardness as CaCO3	267	1	mg/L	A2340 B
LYP-07	Field Blank	H15090363-047	9/15/2015	Hardness as CaCO3	ND	1	mg/L	A2340 B
LYP-07	Natural Sample	H15090363-016	9/15/2015	Hardness as CaCO3	276	1	mg/L	A2340 B
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Hardness as CaCO3	257	1	mg/L	A2340 B
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Hardness as CaCO3	343	1	mg/L	A2340 B
P-06A	Natural Sample	H15090363-044	9/15/2015	Hardness as CaCO3	238	1	mg/L	A2340 B
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Hardness as CaCO3	231	1	mg/L	A2340 B
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Hardness as CaCO3	203	1	mg/L	A2340 B
MW-01	Natural Sample	H15090363-036	9/16/2015	Hardness as CaCO3	328	1	mg/L	A2340 B
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Hardness as CaCO3	114	1	mg/L	A2340 B
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Hardness as CaCO3	382	1	mg/L	A2340 B
P-114	Natural Sample	H15090363-026	9/16/2015	Hardness as CaCO3	166	1	mg/L	A2340 B
P-37A	Natural Sample	H15090363-038	9/16/2015	Hardness as CaCO3	491	1	mg/L	A2340 B
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Hardness as CaCO3	126	1	mg/L	A2340 B
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Hardness as CaCO3	156	1	mg/L	A2340 B
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Hardness as CaCO3	172	1	mg/L	A2340 B
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Hardness as CaCO3	42	1	mg/L	A2340 B
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Hardness as CaCO3	142	1	mg/L	A2340 B
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Hardness as CaCO3	228	1	mg/L	A2340 B
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Hardness as CaCO3	106	1	mg/L	A2340 B
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Hardness as CaCO3	111	1	mg/L	A2340 B
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Hardness as CaCO3	89	1	mg/L	A2340 B
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Hardness as CaCO3	303	1	mg/L	A2340 B
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Hardness as CaCO3	118	1	mg/L	A2340 B
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Hardness as CaCO3	133	1	mg/L	A2340 B
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Hardness as CaCO3	ND	1	mg/L	A2340 B
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Hardness as CaCO3	138	1	mg/L	A2340 B
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Hardness as CaCO3	117	1	mg/L	A2340 B
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Hardness as CaCO3	117	1	mg/L	A2340 B
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Hardness as CaCO3	152	1	mg/L	A2340 B
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Hardness as CaCO3	126	1	mg/L	A2340 B
P-39R	Natural Sample	H15090363-040	9/17/2015	Hardness as CaCO3	665	1	mg/L	A2340 B
P-58A	Field Blank	H15090363-042	9/17/2015	Hardness as CaCO3	ND	1	mg/L	A2340 B
P-58A	Natural Sample	H15090363-037	9/17/2015	Hardness as CaCO3	226	1	mg/L	A2340 B
MW-10	Natural Sample	H15090363-030	9/17/2015	Hardness as CaCO3	108	1	mg/L	A2340 B
MW-2D	Natural Sample	H15050137-016	5/7/2015	Iron, Dissolved	0.03	0.02	mg/L	E200.7
LYP-07	Natural Sample	H15050137-015	5/7/2015	Iron, Dissolved	0.11	0.02	mg/L	E200.7
	Field Blank	H15050137-014	5/7/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
MW-2C	Natural Sample	H15050137-011	5/7/2015	Iron, Dissolved	0.12	0.02	mg/L	E200.7
MW-2B	Natural Sample	H15050137-010	5/7/2015	Iron, Dissolved	0.05	0.02	mg/L	E200.7
MW-2A	Natural Sample	H15050137-009	5/7/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
MW-2B	Natural Sample	H15090363-015	9/15/2015	Iron, Dissolved	0.06	0.02	mg/L	E200.7
MW-2C	Natural Sample	H15090363-014	9/15/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
MW-2D	Natural Sample	H15090363-013	9/15/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7

MW-2A	Natural Sample	H15090363-045	9/15/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYP-07	Field Blank	H15090363-047	9/15/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYP-07	Natural Sample	H15090363-016	9/15/2015	Iron, Dissolved	0.06	0.02	mg/L	E200.7
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
P-06A	Natural Sample	H15090363-044	9/15/2015	Iron, Dissolved	0.14	0.02	mg/L	E200.7
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
MW-01	Natural Sample	H15090363-036	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Iron, Dissolved	60.2	0.02	mg/L	E200.7
P-114	Natural Sample	H15090363-026	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
P-37A	Natural Sample	H15090363-038	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Iron, Dissolved	0.07	0.02	mg/L	E200.7
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
P-39R	Natural Sample	H15090363-040	9/17/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
P-58A	Field Blank	H15090363-042	9/17/2015	Iron, Dissolved	ND	0.02	mg/L	E200.7
P-58A	Natural Sample	H15090363-037	9/17/2015	Iron, Dissolved	8.78	0.02	mg/L	E200.7
MW-10	Natural Sample	H15090363-030	9/17/2015	Iron, Dissolved	7.79	0.02	mg/L	E200.7
MW-2D	Natural Sample	H15050137-016	5/7/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYP-07	Natural Sample	H15050137-015	5/7/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
MW-2A	Natural Sample	H15050137-009	5/7/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
MW-2B	Natural Sample	H15090363-015	9/15/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
MW-2C	Natural Sample	H15090363-014	9/15/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8

MW-2A	Field Duplicate	H15090363-046	9/15/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYP-07	Natural Sample	H15090363-016	9/15/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
P-06A	Natural Sample	H15090363-044	9/15/2015	Lead, Dissolved	0.0005	0.0003	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
MW-01	Natural Sample	H15090363-036	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Lead, Dissolved	0.0108	0.0003	mg/L	E200.8
P-114	Natural Sample	H15090363-026	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
P-37A	Natural Sample	H15090363-038	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Lead, Dissolved	0.0012	0.0003	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
MW-10	Natural Sample	H15090363-030	9/17/2015	Lead, Dissolved	ND	0.0003	mg/L	E200.8
MW-2D	Natural Sample	H15050137-016	5/7/2015	Magnesium, Dissolved	20	1	mg/L	E200.7
LYP-07	Natural Sample	H15050137-015	5/7/2015	Magnesium, Dissolved	15	1	mg/L	E200.7
	Field Blank	H15050137-014	5/7/2015	Magnesium, Dissolved	ND	1	mg/L	E200.7
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Magnesium, Dissolved	15	1	mg/L	E200.7
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Magnesium, Dissolved	15	1	mg/L	E200.7
MW-2C	Natural Sample	H15050137-011	5/7/2015	Magnesium, Dissolved	15	1	mg/L	E200.7
MW-2B	Natural Sample	H15050137-010	5/7/2015	Magnesium, Dissolved	15	1	mg/L	E200.7
MW-2A	Natural Sample	H15050137-009	5/7/2015	Magnesium, Dissolved	13	1	mg/L	E200.7
MW-2B	Natural Sample	H15090363-015	9/15/2015	Magnesium, Dissolved	15	1	mg/L	E200.7
MW-2C	Natural Sample	H15090363-014	9/15/2015	Magnesium, Dissolved	15	1	mg/L	E200.7
MW-2D	Natural Sample	H15090363-013	9/15/2015	Magnesium, Dissolved	20	1	mg/L	E200.7
MW-2A	Natural Sample	H15090363-045	9/15/2015	Magnesium, Dissolved	13	1	mg/L	E200.7
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Magnesium, Dissolved	12	1	mg/L	E200.7

LYP-07	Field Blank	H15090363-047	9/15/2015	Magnesium, Dissolved	ND	1	mg/L	E200.7
LYP-07	Natural Sample	H15090363-016	9/15/2015	Magnesium, Dissolved	16	1	mg/L	E200.7
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Magnesium, Dissolved	16	1	mg/L	E200.7
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Magnesium, Dissolved	20	1	mg/L	E200.7
P-06A	Natural Sample	H15090363-044	9/15/2015	Magnesium, Dissolved	14	1	mg/L	E200.7
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Magnesium, Dissolved	12	1	mg/L	E200.7
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Magnesium, Dissolved	14	1	mg/L	E200.7
MW-01	Natural Sample	H15090363-036	9/16/2015	Magnesium, Dissolved	18	1	mg/L	E200.7
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Magnesium, Dissolved	7	1	mg/L	E200.7
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Magnesium, Dissolved	43	1	mg/L	E200.7
P-114	Natural Sample	H15090363-026	9/16/2015	Magnesium, Dissolved	6	1	mg/L	E200.7
P-37A	Natural Sample	H15090363-038	9/16/2015	Magnesium, Dissolved	25	1	mg/L	E200.7
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Magnesium, Dissolved	8	1	mg/L	E200.7
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Magnesium, Dissolved	12	1	mg/L	E200.7
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Magnesium, Dissolved	10	1	mg/L	E200.7
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Magnesium, Dissolved	2	1	mg/L	E200.7
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Magnesium, Dissolved	7	1	mg/L	E200.7
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Magnesium, Dissolved	15	1	mg/L	E200.7
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Magnesium, Dissolved	6	1	mg/L	E200.7
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Magnesium, Dissolved	7	1	mg/L	E200.7
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Magnesium, Dissolved	4	1	mg/L	E200.7
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Magnesium, Dissolved	18	1	mg/L	E200.7
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Magnesium, Dissolved	7	1	mg/L	E200.7
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Magnesium, Dissolved	8	1	mg/L	E200.7
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Magnesium, Dissolved	ND	1	mg/L	E200.7
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Magnesium, Dissolved	8	1	mg/L	E200.7
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Magnesium, Dissolved	7	1	mg/L	E200.7
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Magnesium, Dissolved	7	1	mg/L	E200.7
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Magnesium, Dissolved	9	1	mg/L	E200.7
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Magnesium, Dissolved	9	1	mg/L	E200.7
P-39R	Natural Sample	H15090363-040	9/17/2015	Magnesium, Dissolved	36	1	mg/L	E200.7
P-58A	Field Blank	H15090363-042	9/17/2015	Magnesium, Dissolved	ND	1	mg/L	E200.7
P-58A	Natural Sample	H15090363-037	9/17/2015	Magnesium, Dissolved	14	1	mg/L	E200.7
MW-10	Natural Sample	H15090363-030	9/17/2015	Magnesium, Dissolved	8	1	mg/L	E200.7
MW-2D	Natural Sample	H15050137-016	5/7/2015	Manganese, Dissolved	0.001	0.001	mg/L	E200.8
LYP-07	Natural Sample	H15050137-015	5/7/2015	Manganese, Dissolved	0.062	0.001	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Manganese, Dissolved	ND	0.001	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Manganese, Dissolved	ND	0.001	mg/L	E200.8
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Manganese, Dissolved	ND	0.001	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Manganese, Dissolved	ND	0.001	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Manganese, Dissolved	0.012	0.001	mg/L	E200.8
MW-2A	Natural Sample	H15050137-009	5/7/2015	Manganese, Dissolved	ND	0.001	mg/L	E200.8
MW-2B	Natural Sample	H15090363-015	9/15/2015	Manganese, Dissolved	0.002	0.001	mg/L	E200.8
MW-2C	Natural Sample	H15090363-014	9/15/2015	Manganese, Dissolved	ND	0.001	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Manganese, Dissolved	ND	0.001	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Manganese, Dissolved	ND	0.001	mg/L	E200.8
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Manganese, Dissolved	ND	0.001	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Manganese, Dissolved	ND	0.001	mg/L	E200.8

LYP-07	Natural Sample	H15090363-016	9/15/2015	Manganese, Dissolved	0.062	0.001	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Manganese, Dissolved	ND	0.001	mg/L	E200.8
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Manganese, Dissolved	ND	0.001	mg/L	E200.8
P-06A	Natural Sample	H15090363-044	9/15/2015	Manganese, Dissolved	0.114	0.001	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Manganese, Dissolved	2.72	0.001	mg/L	E200.8
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Manganese, Dissolved	ND	0.001	mg/L	E200.8
MW-01	Natural Sample	H15090363-036	9/16/2015	Manganese, Dissolved	0.342	0.001	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Manganese, Dissolved	0.008	0.001	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Manganese, Dissolved	27.1	0.001	mg/L	E200.8
P-114	Natural Sample	H15090363-026	9/16/2015	Manganese, Dissolved	ND	0.001	mg/L	E200.8
P-37A	Natural Sample	H15090363-038	9/16/2015	Manganese, Dissolved	5.41	0.001	mg/L	E200.8
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Manganese, Dissolved	0.003	0.001	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Manganese, Dissolved	5.1	0.001	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Manganese, Dissolved	2.07	0.001	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Manganese, Dissolved	0.102	0.001	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Manganese, Dissolved	2.4	0.001	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Manganese, Dissolved	0.596	0.001	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Manganese, Dissolved	2.15	0.001	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Manganese, Dissolved	2.2	0.001	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Manganese, Dissolved	1.33	0.001	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Manganese, Dissolved	0.303	0.001	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Manganese, Dissolved	0.03	0.001	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Manganese, Dissolved	0.072	0.001	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Manganese, Dissolved	ND	0.001	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Manganese, Dissolved	0.018	0.001	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Manganese, Dissolved	0.335	0.001	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Manganese, Dissolved	0.333	0.001	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Manganese, Dissolved	1.24	0.001	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Manganese, Dissolved	5.45	0.001	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Manganese, Dissolved	0.008	0.001	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Manganese, Dissolved	ND	0.001	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Manganese, Dissolved	9.25	0.001	mg/L	E200.8
MW-10	Natural Sample	H15090363-030	9/17/2015	Manganese, Dissolved	4.99	0.001	mg/L	E200.8
MW-2D	Natural Sample	H15050137-016	5/7/2015	Mercury, Dissolved	0.000012	0.000005	mg/L	E245.1
LYP-07	Natural Sample	H15050137-015	5/7/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
	Field Blank	H15050137-014	5/7/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Mercury, Dissolved	0.000007	0.000005	mg/L	E245.1
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Mercury, Dissolved	0.000007	0.000005	mg/L	E245.1
MW-2C	Natural Sample	H15050137-011	5/7/2015	Mercury, Dissolved	0.000005	0.000005	mg/L	E245.1
MW-2B	Natural Sample	H15050137-010	5/7/2015	Mercury, Dissolved	0.000005	0.000005	mg/L	E245.1
MW-2A	Natural Sample	H15050137-009	5/7/2015	Mercury, Dissolved	0.000007	0.000005	mg/L	E245.1
MW-2B	Natural Sample	H15090363-015	9/15/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
MW-2C	Natural Sample	H15090363-014	9/15/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
MW-2D	Natural Sample	H15090363-013	9/15/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
MW-2A	Natural Sample	H15090363-045	9/15/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
LYP-07	Field Blank	H15090363-047	9/15/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
LYP-07	Natural Sample	H15090363-016	9/15/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1

1GW-1056	Natural Sample	H15090363-017	9/15/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Mercury, Dissolved	ND	0.00001	mg/L	E245.1
P-06A	Natural Sample	H15090363-044	9/15/2015	Mercury, Dissolved	0.000007	0.000005	mg/L	E245.1
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Mercury, Dissolved	ND	0.00001	mg/L	E245.1
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
MW-01	Natural Sample	H15090363-036	9/16/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
P-114	Natural Sample	H15090363-026	9/16/2015	Mercury, Dissolved	0.000015	0.000005	mg/L	E245.1
P-37A	Natural Sample	H15090363-038	9/16/2015	Mercury, Dissolved	0.000022	0.000005	mg/L	E245.1
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Mercury, Dissolved	0.000016	0.000005	mg/L	E245.1
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Mercury, Dissolved	0.000006	0.000005	mg/L	E245.1
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Mercury, Dissolved	0.000006	0.000005	mg/L	E245.1
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Mercury, Dissolved	0.000007	0.000005	mg/L	E245.1
P-39R	Natural Sample	H15090363-040	9/17/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
P-58A	Field Blank	H15090363-042	9/17/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
P-58A	Natural Sample	H15090363-037	9/17/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
MW-10	Natural Sample	H15090363-030	9/17/2015	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
MW-2D	Natural Sample	H15050137-016	5/7/2015	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
LYP-07	Natural Sample	H15050137-015	5/7/2015	Molybdenum, Dissolved	0.01	0.005	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Molybdenum, Dissolved	0.006	0.005	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
MW-2A	Natural Sample	H15050137-009	5/7/2015	Molybdenum, Dissolved	0.009	0.005	mg/L	E200.8
MW-2B	Natural Sample	H15090363-015	9/15/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
MW-2C	Natural Sample	H15090363-014	9/15/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Molybdenum, Dissolved	0.005	0.005	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Molybdenum, Dissolved	0.008	0.005	mg/L	E200.8
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Molybdenum, Dissolved	0.008	0.005	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
LYP-07	Natural Sample	H15090363-016	9/15/2015	Molybdenum, Dissolved	0.008	0.005	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Molybdenum, Dissolved	0.008	0.005	mg/L	E200.8

GW-1010R	Natural Sample	H15090363-012	9/15/2015	Molybdenum, Dissolved	0.01	0.005	mg/L	E200.8
P-06A	Natural Sample	H15090363-044	9/15/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Molybdenum, Dissolved	0.026	0.005	mg/L	E200.8
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Molybdenum, Dissolved	0.011	0.005	mg/L	E200.8
MW-01	Natural Sample	H15090363-036	9/16/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Molybdenum, Dissolved	0.011	0.005	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
P-114	Natural Sample	H15090363-026	9/16/2015	Molybdenum, Dissolved	0.007	0.005	mg/L	E200.8
P-37A	Natural Sample	H15090363-038	9/16/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Molybdenum, Dissolved	0.048	0.005	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Molybdenum, Dissolved	0.039	0.005	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Molybdenum, Dissolved	0.007	0.005	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Molybdenum, Dissolved	0.026	0.005	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Molybdenum, Dissolved	0.012	0.005	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Molybdenum, Dissolved	0.007	0.005	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Molybdenum, Dissolved	0.007	0.005	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Molybdenum, Dissolved	0.006	0.005	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Molybdenum, Dissolved	0.006	0.005	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
MW-10	Natural Sample	H15090363-030	9/17/2015	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
MW-2D	Natural Sample	H15050137-016	5/7/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYP-07	Natural Sample	H15050137-015	5/7/2015	Nickel, Dissolved	0.004	0.002	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
MW-2A	Natural Sample	H15050137-009	5/7/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
MW-2B	Natural Sample	H15090363-015	9/15/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
MW-2C	Natural Sample	H15090363-014	9/15/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYP-07	Natural Sample	H15090363-016	9/15/2015	Nickel, Dissolved	0.004	0.002	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8

P-06A	Natural Sample	H15090363-044	9/15/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
MW-01	Natural Sample	H15090363-036	9/16/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Nickel, Dissolved	0.02	0.002	mg/L	E200.8
P-114	Natural Sample	H15090363-026	9/16/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
P-37A	Natural Sample	H15090363-038	9/16/2015	Nickel, Dissolved	0.004	0.002	mg/L	E200.8
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Nickel, Dissolved	0.005	0.002	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Nickel, Dissolved	0.012	0.002	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Nickel, Dissolved	0.002	0.002	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Nickel, Dissolved	0.002	0.002	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Nickel, Dissolved	0.023	0.002	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Nickel, Dissolved	0.013	0.002	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Nickel, Dissolved	0.013	0.002	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Nickel, Dissolved	0.009	0.002	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Nickel, Dissolved	0.002	0.002	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Nickel, Dissolved	0.005	0.002	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Nickel, Dissolved	0.005	0.002	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Nickel, Dissolved	0.002	0.002	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Nickel, Dissolved	0.015	0.002	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Nickel, Dissolved	ND	0.002	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Nickel, Dissolved	0.01	0.002	mg/L	E200.8
MW-10	Natural Sample	H15090363-030	9/17/2015	Nickel, Dissolved	0.007	0.002	mg/L	E200.8
MW-2D	Natural Sample	H15050137-016	5/7/2015	Potassium, Dissolved	4	1	mg/L	E200.7
LYP-07	Natural Sample	H15050137-015	5/7/2015	Potassium, Dissolved	4	1	mg/L	E200.7
	Field Blank	H15050137-014	5/7/2015	Potassium, Dissolved	ND	1	mg/L	E200.7
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Potassium, Dissolved	3	1	mg/L	E200.7
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Potassium, Dissolved	3	1	mg/L	E200.7
MW-2C	Natural Sample	H15050137-011	5/7/2015	Potassium, Dissolved	3	1	mg/L	E200.7
MW-2B	Natural Sample	H15050137-010	5/7/2015	Potassium, Dissolved	3	1	mg/L	E200.7
MW-2A	Natural Sample	H15050137-009	5/7/2015	Potassium, Dissolved	3	1	mg/L	E200.7
MW-2B	Natural Sample	H15090363-015	9/15/2015	Potassium, Dissolved	4	1	mg/L	E200.7
MW-2C	Natural Sample	H15090363-014	9/15/2015	Potassium, Dissolved	3	1	mg/L	E200.7
MW-2D	Natural Sample	H15090363-013	9/15/2015	Potassium, Dissolved	4	1	mg/L	E200.7
MW-2A	Natural Sample	H15090363-045	9/15/2015	Potassium, Dissolved	4	1	mg/L	E200.7
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Potassium, Dissolved	4	1	mg/L	E200.7
LYP-07	Field Blank	H15090363-047	9/15/2015	Potassium, Dissolved	ND	1	mg/L	E200.7
LYP-07	Natural Sample	H15090363-016	9/15/2015	Potassium, Dissolved	5	1	mg/L	E200.7
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Potassium, Dissolved	4	1	mg/L	E200.7
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Potassium, Dissolved	7	1	mg/L	E200.7
P-06A	Natural Sample	H15090363-044	9/15/2015	Potassium, Dissolved	6	1	mg/L	E200.7

GW-1052R	Natural Sample	H15090363-011	9/15/2015	Potassium, Dissolved	8	1	mg/L	E200.7
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Potassium, Dissolved	5	1	mg/L	E200.7
MW-01	Natural Sample	H15090363-036	9/16/2015	Potassium, Dissolved	8	1	mg/L	E200.7
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Potassium, Dissolved	6	1	mg/L	E200.7
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Potassium, Dissolved	7	1	mg/L	E200.7
P-114	Natural Sample	H15090363-026	9/16/2015	Potassium, Dissolved	5	1	mg/L	E200.7
P-37A	Natural Sample	H15090363-038	9/16/2015	Potassium, Dissolved	10	1	mg/L	E200.7
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Potassium, Dissolved	5	1	mg/L	E200.7
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Potassium, Dissolved	6	1	mg/L	E200.7
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Potassium, Dissolved	4	1	mg/L	E200.7
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Potassium, Dissolved	4	1	mg/L	E200.7
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Potassium, Dissolved	5	1	mg/L	E200.7
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Potassium, Dissolved	4	1	mg/L	E200.7
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Potassium, Dissolved	5	1	mg/L	E200.7
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Potassium, Dissolved	5	1	mg/L	E200.7
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Potassium, Dissolved	5	1	mg/L	E200.7
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Potassium, Dissolved	3	1	mg/L	E200.7
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Potassium, Dissolved	1	1	mg/L	E200.7
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Potassium, Dissolved	2	1	mg/L	E200.7
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Potassium, Dissolved	ND	1	mg/L	E200.7
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Potassium, Dissolved	3	1	mg/L	E200.7
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Potassium, Dissolved	5	1	mg/L	E200.7
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Potassium, Dissolved	5	1	mg/L	E200.7
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Potassium, Dissolved	5	1	mg/L	E200.7
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Potassium, Dissolved	6	1	mg/L	E200.7
P-39R	Natural Sample	H15090363-040	9/17/2015	Potassium, Dissolved	15	1	mg/L	E200.7
P-58A	Field Blank	H15090363-042	9/17/2015	Potassium, Dissolved	ND	1	mg/L	E200.7
P-58A	Natural Sample	H15090363-037	9/17/2015	Potassium, Dissolved	8	1	mg/L	E200.7
MW-10	Natural Sample	H15090363-030	9/17/2015	Potassium, Dissolved	5	1	mg/L	E200.7
MW-2D	Natural Sample	H15050137-016	5/7/2015	Selenium, Dissolved	0.004	0.001	mg/L	E200.8
LYP-07	Natural Sample	H15050137-015	5/7/2015	Selenium, Dissolved	0.002	0.001	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Selenium, Dissolved	0.004	0.001	mg/L	E200.8
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Selenium, Dissolved	0.004	0.001	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Selenium, Dissolved	0.002	0.001	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Selenium, Dissolved	0.002	0.001	mg/L	E200.8
MW-2A	Natural Sample	H15050137-009	5/7/2015	Selenium, Dissolved	0.01	0.001	mg/L	E200.8
MW-2B	Natural Sample	H15090363-015	9/15/2015	Selenium, Dissolved	0.002	0.001	mg/L	E200.8
MW-2C	Natural Sample	H15090363-014	9/15/2015	Selenium, Dissolved	0.002	0.001	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Selenium, Dissolved	0.005	0.001	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Selenium, Dissolved	0.011	0.001	mg/L	E200.8
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Selenium, Dissolved	0.011	0.001	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
LYP-07	Natural Sample	H15090363-016	9/15/2015	Selenium, Dissolved	0.003	0.001	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Selenium, Dissolved	0.005	0.001	mg/L	E200.8
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
P-06A	Natural Sample	H15090363-044	9/15/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8

GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Selenium, Dissolved	0.001	0.001	mg/L	E200.8
MW-01	Natural Sample	H15090363-036	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
P-114	Natural Sample	H15090363-026	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
P-37A	Natural Sample	H15090363-038	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Selenium, Dissolved	0.002	0.001	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
MW-10	Natural Sample	H15090363-030	9/17/2015	Selenium, Dissolved	ND	0.001	mg/L	E200.8
MW-2D	Natural Sample	H15050137-016	5/7/2015	Silver, Dissolved	0.0003	0.0002	mg/L	E200.8
LYP-07	Natural Sample	H15050137-015	5/7/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
MW-2A	Natural Sample	H15050137-009	5/7/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
MW-2B	Natural Sample	H15090363-015	9/15/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
MW-2C	Natural Sample	H15090363-014	9/15/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYP-07	Natural Sample	H15090363-016	9/15/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
P-06A	Natural Sample	H15090363-044	9/15/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8

MW-01	Natural Sample	H15090363-036	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
P-114	Natural Sample	H15090363-026	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
P-37A	Natural Sample	H15090363-038	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
MW-10	Natural Sample	H15090363-030	9/17/2015	Silver, Dissolved	ND	0.0002	mg/L	E200.8
MW-2D	Natural Sample	H15050137-016	5/7/2015	Sodium, Dissolved	28	1	mg/L	E200.7
LYP-07	Natural Sample	H15050137-015	5/7/2015	Sodium, Dissolved	31	1	mg/L	E200.7
	Field Blank	H15050137-014	5/7/2015	Sodium, Dissolved	ND	1	mg/L	E200.7
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Sodium, Dissolved	27	1	mg/L	E200.7
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Sodium, Dissolved	27	1	mg/L	E200.7
MW-2C	Natural Sample	H15050137-011	5/7/2015	Sodium, Dissolved	32	1	mg/L	E200.7
MW-2B	Natural Sample	H15050137-010	5/7/2015	Sodium, Dissolved	23	1	mg/L	E200.7
MW-2A	Natural Sample	H15050137-009	5/7/2015	Sodium, Dissolved	26	1	mg/L	E200.7
MW-2B	Natural Sample	H15090363-015	9/15/2015	Sodium, Dissolved	25	1	mg/L	E200.7
MW-2C	Natural Sample	H15090363-014	9/15/2015	Sodium, Dissolved	32	1	mg/L	E200.7
MW-2D	Natural Sample	H15090363-013	9/15/2015	Sodium, Dissolved	29	1	mg/L	E200.7
MW-2A	Natural Sample	H15090363-045	9/15/2015	Sodium, Dissolved	27	1	mg/L	E200.7
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Sodium, Dissolved	28	1	mg/L	E200.7
LYP-07	Field Blank	H15090363-047	9/15/2015	Sodium, Dissolved	ND	1	mg/L	E200.7
LYP-07	Natural Sample	H15090363-016	9/15/2015	Sodium, Dissolved	34	1	mg/L	E200.7
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Sodium, Dissolved	29	1	mg/L	E200.7
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Sodium, Dissolved	146	1	mg/L	E200.7
P-06A	Natural Sample	H15090363-044	9/15/2015	Sodium, Dissolved	77	1	mg/L	E200.7
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Sodium, Dissolved	95	1	mg/L	E200.7
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Sodium, Dissolved	38	1	mg/L	E200.7
MW-01	Natural Sample	H15090363-036	9/16/2015	Sodium, Dissolved	31	1	mg/L	E200.7

GW-1003R	Natural Sample	H15090363-028	9/16/2015	Sodium, Dissolved	32	1	mg/L	E200.7
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Sodium, Dissolved	52	1	mg/L	E200.7
P-114	Natural Sample	H15090363-026	9/16/2015	Sodium, Dissolved	98	1	mg/L	E200.7
P-37A	Natural Sample	H15090363-038	9/16/2015	Sodium, Dissolved	88	1	mg/L	E200.7
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Sodium, Dissolved	230	1	mg/L	E200.7
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Sodium, Dissolved	33	1	mg/L	E200.7
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Sodium, Dissolved	24	1	mg/L	E200.7
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Sodium, Dissolved	124	1	mg/L	E200.7
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Sodium, Dissolved	35	1	mg/L	E200.7
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Sodium, Dissolved	24	1	mg/L	E200.7
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Sodium, Dissolved	21	1	mg/L	E200.7
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Sodium, Dissolved	21	1	mg/L	E200.7
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Sodium, Dissolved	20	1	mg/L	E200.7
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Sodium, Dissolved	16	1	mg/L	E200.7
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Sodium, Dissolved	8	1	mg/L	E200.7
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Sodium, Dissolved	8	1	mg/L	E200.7
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Sodium, Dissolved	ND	1	mg/L	E200.7
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Sodium, Dissolved	51	1	mg/L	E200.7
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Sodium, Dissolved	24	1	mg/L	E200.7
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Sodium, Dissolved	24	1	mg/L	E200.7
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Sodium, Dissolved	27	1	mg/L	E200.7
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Sodium, Dissolved	32	1	mg/L	E200.7
P-39R	Natural Sample	H15090363-040	9/17/2015	Sodium, Dissolved	92	1	mg/L	E200.7
P-58A	Field Blank	H15090363-042	9/17/2015	Sodium, Dissolved	ND	1	mg/L	E200.7
P-58A	Natural Sample	H15090363-037	9/17/2015	Sodium, Dissolved	33	1	mg/L	E200.7
MW-10	Natural Sample	H15090363-030	9/17/2015	Sodium, Dissolved	32	1	mg/L	E200.7
MW-2D	Natural Sample	H15050137-016	5/7/2015	Sulfate	197	1	mg/L	E300.0
LYP-07	Natural Sample	H15050137-015	5/7/2015	Sulfate	138	1	mg/L	E300.0
	Field Blank	H15050137-014	5/7/2015	Sulfate	ND	1	mg/L	E300.0
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Sulfate	175	1	mg/L	E300.0
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Sulfate	178	1	mg/L	E300.0
MW-2C	Natural Sample	H15050137-011	5/7/2015	Sulfate	171	1	mg/L	E300.0
MW-2B	Natural Sample	H15050137-010	5/7/2015	Sulfate	141	1	mg/L	E300.0
MW-2A	Natural Sample	H15050137-009	5/7/2015	Sulfate	215	1	mg/L	E300.0
MW-2B	Natural Sample	H15090363-015	9/15/2015	Sulfate	134	1	mg/L	E300.0
MW-2C	Natural Sample	H15090363-014	9/15/2015	Sulfate	165	1	mg/L	E300.0
MW-2D	Natural Sample	H15090363-013	9/15/2015	Sulfate	194	1	mg/L	E300.0
MW-2A	Natural Sample	H15090363-045	9/15/2015	Sulfate	205	1	mg/L	E300.0
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Sulfate	209	1	mg/L	E300.0
LYP-07	Field Blank	H15090363-047	9/15/2015	Sulfate	ND	1	mg/L	E300.0
LYP-07	Natural Sample	H15090363-016	9/15/2015	Sulfate	155	1	mg/L	E300.0
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Sulfate	184	1	mg/L	E300.0
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Sulfate	371	1	mg/L	E300.0
P-06A	Natural Sample	H15090363-044	9/15/2015	Sulfate	181	1	mg/L	E300.0
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Sulfate	306	1	mg/L	E300.0
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Sulfate	94	1	mg/L	E300.0
MW-01	Natural Sample	H15090363-036	9/16/2015	Sulfate	187	1	mg/L	E300.0
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Sulfate	40	1	mg/L	E300.0

1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Sulfate	671	1	mg/L	E300.0
P-114	Natural Sample	H15090363-026	9/16/2015	Sulfate	122	1	mg/L	E300.0
P-37A	Natural Sample	H15090363-038	9/16/2015	Sulfate	308	1	mg/L	E300.0
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Sulfate	258	1	mg/L	E300.0
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Sulfate	91	1	mg/L	E300.0
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Sulfate	61	1	mg/L	E300.0
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Sulfate	114	1	mg/L	E300.0
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Sulfate	65	1	mg/L	E300.0
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Sulfate	222	1	mg/L	E300.0
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Sulfate	90	1	mg/L	E300.0
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Sulfate	90	1	mg/L	E300.0
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Sulfate	87	1	mg/L	E300.0
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Sulfate	182	1	mg/L	E300.0
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Sulfate	14	1	mg/L	E300.0
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Sulfate	19	1	mg/L	E300.0
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Sulfate	ND	1	mg/L	E300.0
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Sulfate	96	1	mg/L	E300.0
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Sulfate	104	1	mg/L	E300.0
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Sulfate	103	1	mg/L	E300.0
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Sulfate	71	1	mg/L	E300.0
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Sulfate	99	1	mg/L	E300.0
P-39R	Natural Sample	H15090363-040	9/17/2015	Sulfate	333	1	mg/L	E300.0
P-58A	Field Blank	H15090363-042	9/17/2015	Sulfate	ND	1	mg/L	E300.0
P-58A	Natural Sample	H15090363-037	9/17/2015	Sulfate	217	1	mg/L	E300.0
MW-10	Natural Sample	H15090363-030	9/17/2015	Sulfate	127	1	mg/L	E300.0
MW-2D	Natural Sample	H15050137-016	5/7/2015	Uranium, Dissolved	0.0565	0.0002	mg/L	E200.8
LYP-07	Natural Sample	H15050137-015	5/7/2015	Uranium, Dissolved	0.055	0.0002	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Uranium, Dissolved	ND	0.0002	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Uranium, Dissolved	0.0315	0.0002	mg/L	E200.8
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Uranium, Dissolved	0.0316	0.0002	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Uranium, Dissolved	0.0088	0.0002	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Uranium, Dissolved	0.0048	0.0002	mg/L	E200.8
MW-2A	Natural Sample	H15050137-009	5/7/2015	Uranium, Dissolved	0.0426	0.0002	mg/L	E200.8
MW-2B	Natural Sample	H15090363-015	9/15/2015	Uranium, Dissolved	0.005	0.0002	mg/L	E200.8
MW-2C	Natural Sample	H15090363-014	9/15/2015	Uranium, Dissolved	0.0088	0.0002	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Uranium, Dissolved	0.0521	0.0002	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Uranium, Dissolved	0.0418	0.0002	mg/L	E200.8
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Uranium, Dissolved	0.0416	0.0002	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Uranium, Dissolved	ND	0.0002	mg/L	E200.8
LYP-07	Natural Sample	H15090363-016	9/15/2015	Uranium, Dissolved	0.0573	0.0002	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Uranium, Dissolved	0.0353	0.0002	mg/L	E200.8
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Uranium, Dissolved	0.102	0.0002	mg/L	E200.8
P-06A	Natural Sample	H15090363-044	9/15/2015	Uranium, Dissolved	0.0091	0.0002	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Uranium, Dissolved	0.0034	0.0002	mg/L	E200.8
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Uranium, Dissolved	0.0063	0.0002	mg/L	E200.8
MW-01	Natural Sample	H15090363-036	9/16/2015	Uranium, Dissolved	0.0061	0.0002	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Uranium, Dissolved	0.0029	0.0002	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Uranium, Dissolved	0.0003	0.0002	mg/L	E200.8

P-114	Natural Sample	H15090363-026	9/16/2015	Uranium, Dissolved	0.0029	0.0002	mg/L	E200.8
P-37A	Natural Sample	H15090363-038	9/16/2015	Uranium, Dissolved	0.0052	0.0002	mg/L	E200.8
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Uranium, Dissolved	0.0029	0.0002	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Uranium, Dissolved	0.0011	0.0002	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Uranium, Dissolved	0.0047	0.0002	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Uranium, Dissolved	0.0017	0.0002	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Uranium, Dissolved	0.0032	0.0002	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Uranium, Dissolved	ND	0.0002	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Uranium, Dissolved	0.0007	0.0002	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Uranium, Dissolved	0.0007	0.0002	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Uranium, Dissolved	0.002	0.0002	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Uranium, Dissolved	0.0186	0.0002	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Uranium, Dissolved	0.0049	0.0002	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Uranium, Dissolved	0.0238	0.0002	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Uranium, Dissolved	ND	0.0002	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Uranium, Dissolved	0.0012	0.0002	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Uranium, Dissolved	0.0002	0.0002	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Uranium, Dissolved	0.0002	0.0002	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Uranium, Dissolved	0.0013	0.0002	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Uranium, Dissolved	0.002	0.0002	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Uranium, Dissolved	0.083	0.0002	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Uranium, Dissolved	ND	0.0002	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Uranium, Dissolved	0.0006	0.0002	mg/L	E200.8
MW-10	Natural Sample	H15090363-030	9/17/2015	Uranium, Dissolved	0.0004	0.0002	mg/L	E200.8
MW-2D	Natural Sample	H15050137-016	5/7/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYP-07	Natural Sample	H15050137-015	5/7/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
MW-2A	Natural Sample	H15050137-009	5/7/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
MW-2B	Natural Sample	H15090363-015	9/15/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
MW-2C	Natural Sample	H15090363-014	9/15/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYP-07	Natural Sample	H15090363-016	9/15/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
P-06A	Natural Sample	H15090363-044	9/15/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
MW-01	Natural Sample	H15090363-036	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
P-114	Natural Sample	H15090363-026	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8

P-37A	Natural Sample	H15090363-038	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
MW-10	Natural Sample	H15090363-030	9/17/2015	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
MW-2D	Natural Sample	H15050137-016	5/7/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
LYP-07	Natural Sample	H15050137-015	5/7/2015	Zinc, Dissolved	0.014	0.008	mg/L	E200.8
	Field Blank	H15050137-014	5/7/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
1GW-1056	Natural Sample	H15050137-013	5/7/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
1GW-1056	Field Duplicate	H15050137-012	5/7/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
MW-2C	Natural Sample	H15050137-011	5/7/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
MW-2B	Natural Sample	H15050137-010	5/7/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
MW-2A	Natural Sample	H15050137-009	5/7/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
MW-2B	Natural Sample	H15090363-015	9/15/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
MW-2C	Natural Sample	H15090363-014	9/15/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
MW-2D	Natural Sample	H15090363-013	9/15/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
MW-2A	Natural Sample	H15090363-045	9/15/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
MW-2A	Field Duplicate	H15090363-046	9/15/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
LYP-07	Field Blank	H15090363-047	9/15/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
LYP-07	Natural Sample	H15090363-016	9/15/2015	Zinc, Dissolved	0.024	0.008	mg/L	E200.8
1GW-1056	Natural Sample	H15090363-017	9/15/2015	Zinc, Dissolved	0.029	0.008	mg/L	E200.8
GW-1010R	Natural Sample	H15090363-012	9/15/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
P-06A	Natural Sample	H15090363-044	9/15/2015	Zinc, Dissolved	0.155	0.008	mg/L	E200.8
GW-1052R	Natural Sample	H15090363-011	9/15/2015	Zinc, Dissolved	1.71	0.008	mg/L	E200.8
GW-RK-BG	Natural Sample	H15090363-029	9/16/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
MW-01	Natural Sample	H15090363-036	9/16/2015	Zinc, Dissolved	0.087	0.008	mg/L	E200.8
GW-1003R	Natural Sample	H15090363-028	9/16/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
1GW-1004A	Natural Sample	H15090363-027	9/16/2015	Zinc, Dissolved	8.17	0.008	mg/L	E200.8
P-114	Natural Sample	H15090363-026	9/16/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
P-37A	Natural Sample	H15090363-038	9/16/2015	Zinc, Dissolved	0.158	0.008	mg/L	E200.8

GW-MC-BG	Natural Sample	H15090363-025	9/16/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
GW-MC-SS	Natural Sample	H15090363-024	9/16/2015	Zinc, Dissolved	3.62	0.008	mg/L	E200.8
GW-FM-WS	Natural Sample	H15090363-023	9/16/2015	Zinc, Dissolved	0.037	0.008	mg/L	E200.8
GW-CR-BG	Natural Sample	H15090363-022	9/16/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
GW-CR-WS	Natural Sample	H15090363-021	9/16/2015	Zinc, Dissolved	0.214	0.008	mg/L	E200.8
GW-ST-BG	Natural Sample	H15090363-019	9/16/2015	Zinc, Dissolved	0.75	0.008	mg/L	E200.8
GW-ST-WS	Natural Sample	H15090363-035	9/16/2015	Zinc, Dissolved	3.85	0.008	mg/L	E200.8
GW-ST-WS	Field Duplicate	H15090363-041	9/16/2015	Zinc, Dissolved	4.06	0.008	mg/L	E200.8
GW-ST-ES	Natural Sample	H15090363-020	9/16/2015	Zinc, Dissolved	3.23	0.008	mg/L	E200.8
GW-FR-ES	Natural Sample	H15090363-018	9/16/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
GW-FR-BG	Natural Sample	H15090363-033	9/16/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
GW-FR-WS	Natural Sample	H15090363-034	9/16/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
GW-FR-WS	Field Blank	H15090363-043	9/16/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
GW-CR-ES	Natural Sample	H15090363-009	9/17/2015	Zinc, Dissolved	0.439	0.008	mg/L	E200.8
GW-FM-BG	Natural Sample	H15090363-031	9/17/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
GW-FM-BG	Field Duplicate	H15090363-032	9/17/2015	Zinc, Dissolved	0.009	0.008	mg/L	E200.8
GW-FM-ES	Natural Sample	H15090363-010	9/17/2015	Zinc, Dissolved	0.263	0.008	mg/L	E200.8
GW-MC-NS	Natural Sample	H15090363-039	9/17/2015	Zinc, Dissolved	8.28	0.008	mg/L	E200.8
P-39R	Natural Sample	H15090363-040	9/17/2015	Zinc, Dissolved	0.012	0.008	mg/L	E200.8
P-58A	Field Blank	H15090363-042	9/17/2015	Zinc, Dissolved	ND	0.008	mg/L	E200.8
P-58A	Natural Sample	H15090363-037	9/17/2015	Zinc, Dissolved	4.96	0.008	mg/L	E200.8
MW-10	Natural Sample	H15090363-030	9/17/2015	Zinc, Dissolved	3.57	0.008	mg/L	E200.8

ND Not detected at analytical reporting limit.

APPENDIX F

VADOSE ZONE WATER DATA

Table F1. Vadose zone water analyte concentrations in the Streamside Tailings Operable Unit, 2015.

Site	Type	Lab ID	Date	Parameter	Results	Reporting Limit	Unit	Method
LYS-01	Natural Sample	H15050137-001	7-May-15	Alkalinity, Total as CaCO3	150	4	mg/L	A2320 B
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Alkalinity, Total as CaCO3	170	4	mg/L	A2320 B
LYS-02	Natural Sample	H15050137-002	7-May-15	Alkalinity, Total as CaCO3	560	4	mg/L	A2320 B
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Alkalinity, Total as CaCO3	770	4	mg/L	A2320 B
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Alkalinity, Total as CaCO3	240	4	mg/L	A2320 B
LYS-04	Natural Sample	H15050137-004	7-May-15	Alkalinity, Total as CaCO3	250	4	mg/L	A2320 B
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Alkalinity, Total as CaCO3	270	4	mg/L	A2320 B
LYS-05	Natural Sample	H15050137-005	7-May-15	Alkalinity, Total as CaCO3	260	4	mg/L	A2320 B
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Alkalinity, Total as CaCO3	250	4	mg/L	A2320 B
LYS-06	Natural Sample	H15050137-006	7-May-15	Alkalinity, Total as CaCO3	50	4	mg/L	A2320 B
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Alkalinity, Total as CaCO3	62	4	mg/L	A2320 B
LYS-08	Natural Sample	H15050137-008	7-May-15	Alkalinity, Total as CaCO3	340	4	mg/L	A2320 B
LYS-01	Natural Sample	H15050137-001	7-May-15	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYS-02	Natural Sample	H15050137-002	7-May-15	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYS-03	Natural Sample	H15050137-003	7-May-15	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYS-04	Natural Sample	H15050137-004	7-May-15	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYS-05	Natural Sample	H15050137-005	7-May-15	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYS-06	Natural Sample	H15050137-006	7-May-15	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYS-07	Natural Sample	H15050137-007	7-May-15	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYS-08	Natural Sample	H15050137-008	7-May-15	Aluminum, Dissolved	ND	0.009	mg/L	E200.7
LYS-01	Natural Sample	H15050137-001	7-May-15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Antimony, Dissolved	0.0006	0.0005	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Antimony, Dissolved	0.001	0.0005	mg/L	E200.8
LYS-03	Natural Sample	H15050137-003	7-May-15	Antimony, Dissolved	ND	0.001	mg/L	E200.8
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Antimony, Dissolved	0.0008	0.0005	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Antimony, Dissolved	ND	0.002	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Antimony, Dissolved	0.0017	0.0005	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Antimony, Dissolved	ND	0.002	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Antimony, Dissolved	0.0014	0.0005	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Antimony, Dissolved	0.0005	0.0005	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Antimony, Dissolved	ND	0.0008	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Antimony, Dissolved	ND	0.0005	mg/L	E200.8
LYS-01	Natural Sample	H15050137-001	7-May-15	Arsenic, Dissolved	0.004	0.001	mg/L	E200.8

LYS-01	Natural Sample	H15090363-001	15-Sep-15	Arsenic, Dissolved	0.004	0.001	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Arsenic, Dissolved	0.028	0.001	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Arsenic, Dissolved	0.034	0.001	mg/L	E200.8
LYS-03	Natural Sample	H15050137-003	7-May-15	Arsenic, Dissolved	0.081	0.001	mg/L	E200.8
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Arsenic, Dissolved	0.119	0.001	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Arsenic, Dissolved	0.074	0.001	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Arsenic, Dissolved	0.068	0.001	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Arsenic, Dissolved	0.018	0.001	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Arsenic, Dissolved	0.016	0.001	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Arsenic, Dissolved	0.002	0.001	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Arsenic, Dissolved	0.002	0.001	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Arsenic, Dissolved	0.006	0.001	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Arsenic, Dissolved	0.005	0.001	mg/L	E200.8
LYS-01	Natural Sample	H15050137-001	7-May-15	Barium, Dissolved	0.034	0.003	mg/L	E200.8
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Barium, Dissolved	0.042	0.003	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Barium, Dissolved	0.011	0.003	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Barium, Dissolved	0.015	0.003	mg/L	E200.8
LYS-03	Natural Sample	H15050137-003	7-May-15	Barium, Dissolved	0.03	0.003	mg/L	E200.8
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Barium, Dissolved	0.051	0.003	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Barium, Dissolved	0.06	0.003	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Barium, Dissolved	0.07	0.003	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Barium, Dissolved	0.015	0.003	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Barium, Dissolved	0.015	0.003	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Barium, Dissolved	0.009	0.003	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Barium, Dissolved	0.01	0.003	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Barium, Dissolved	0.006	0.003	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Barium, Dissolved	0.006	0.003	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Barium, Dissolved	0.026	0.003	mg/L	E200.8
LYS-01	Natural Sample	H15050137-001	7-May-15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYS-03	Natural Sample	H15050137-003	7-May-15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Beryllium, Dissolved	ND	0.0008	mg/L	E200.8
LYS-01	Natural Sample	H15050137-001	7-May-15	Bicarbonate Alkalinity as HCO3	180	4	mg/L	A2320 B
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Bicarbonate Alkalinity as HCO3	210	4	mg/L	A2320 B
LYS-02	Natural Sample	H15050137-002	7-May-15	Bicarbonate Alkalinity as HCO3	680	4	mg/L	A2320 B
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Bicarbonate Alkalinity as HCO3	940	4	mg/L	A2320 B

LYS-03	Natural Sample	H15090363-003	15-Sep-15	Bicarbonate Alkalinity as HCO3	290	4	mg/L	A2320 B
LYS-04	Natural Sample	H15050137-004	7-May-15	Bicarbonate Alkalinity as HCO3	290	4	mg/L	A2320 B
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Bicarbonate Alkalinity as HCO3	330	4	mg/L	A2320 B
LYS-05	Natural Sample	H15050137-005	7-May-15	Bicarbonate Alkalinity as HCO3	310	4	mg/L	A2320 B
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Bicarbonate Alkalinity as HCO3	310	4	mg/L	A2320 B
LYS-06	Natural Sample	H15050137-006	7-May-15	Bicarbonate Alkalinity as HCO3	60	4	mg/L	A2320 B
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Bicarbonate Alkalinity as HCO3	75	4	mg/L	A2320 B
LYS-08	Natural Sample	H15050137-008	7-May-15	Bicarbonate Alkalinity as HCO3	410	4	mg/L	A2320 B
LYS-01	Natural Sample	H15050137-001	7-May-15	Boron, Dissolved	ND	0.1	mg/L	E200.7
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Boron, Dissolved	ND	0.1	mg/L	E200.7
LYS-02	Natural Sample	H15050137-002	7-May-15	Boron, Dissolved	0.5	0.1	mg/L	E200.7
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Boron, Dissolved	0.6	0.1	mg/L	E200.7
LYS-03	Natural Sample	H15050137-003	7-May-15	Boron, Dissolved	0.1	0.1	mg/L	E200.7
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Boron, Dissolved	0.2	0.1	mg/L	E200.7
LYS-04	Natural Sample	H15050137-004	7-May-15	Boron, Dissolved	ND	0.1	mg/L	E200.7
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Boron, Dissolved	0.1	0.1	mg/L	E200.7
LYS-05	Natural Sample	H15050137-005	7-May-15	Boron, Dissolved	2.1	0.1	mg/L	E200.7
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Boron, Dissolved	2.2	0.1	mg/L	E200.7
LYS-06	Natural Sample	H15050137-006	7-May-15	Boron, Dissolved	0.2	0.1	mg/L	E200.7
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Boron, Dissolved	0.3	0.1	mg/L	E200.7
LYS-07	Natural Sample	H15050137-007	7-May-15	Boron, Dissolved	0.2	0.1	mg/L	E200.7
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Boron, Dissolved	0.2	0.1	mg/L	E200.7
LYS-08	Natural Sample	H15050137-008	7-May-15	Boron, Dissolved	0.1	0.1	mg/L	E200.7
LYS-01	Natural Sample	H15050137-001	7-May-15	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Cadmium, Dissolved	0.00005	0.00003	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Cadmium, Dissolved	0.00004	0.00003	mg/L	E200.8
LYS-03	Natural Sample	H15050137-003	7-May-15	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Cadmium, Dissolved	0.00004	0.00003	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Cadmium, Dissolved	0.00004	0.00003	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Cadmium, Dissolved	0.00018	0.00003	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Cadmium, Dissolved	0.00016	0.00003	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Cadmium, Dissolved	ND	0.00003	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Cadmium, Dissolved	0.00007	0.00003	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Cadmium, Dissolved	0.00007	0.00003	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Cadmium, Dissolved	0.00021	0.00003	mg/L	E200.8
LYS-01	Natural Sample	H15050137-001	7-May-15	Calcium, Dissolved	80	1	mg/L	E200.7
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Calcium, Dissolved	96	1	mg/L	E200.7
LYS-02	Natural Sample	H15050137-002	7-May-15	Calcium, Dissolved	323	1	mg/L	E200.7
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Calcium, Dissolved	430	1	mg/L	E200.7
LYS-03	Natural Sample	H15050137-003	7-May-15	Calcium, Dissolved	38	1	mg/L	E200.7
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Calcium, Dissolved	68	1	mg/L	E200.7
LYS-04	Natural Sample	H15050137-004	7-May-15	Calcium, Dissolved	104	1	mg/L	E200.7
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Calcium, Dissolved	102	1	mg/L	E200.7
LYS-05	Natural Sample	H15050137-005	7-May-15	Calcium, Dissolved	442	1	mg/L	E200.7
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Calcium, Dissolved	429	1	mg/L	E200.7

LYS-06	Natural Sample	H15050137-006	7-May-15	Calcium, Dissolved	216	1	mg/L	E200.7
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Calcium, Dissolved	166	1	mg/L	E200.7
LYS-07	Natural Sample	H15050137-007	7-May-15	Calcium, Dissolved	245	1	mg/L	E200.7
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Calcium, Dissolved	281	1	mg/L	E200.7
LYS-08	Natural Sample	H15050137-008	7-May-15	Calcium, Dissolved	196	1	mg/L	E200.7
LYS-01	Natural Sample	H15050137-001	7-May-15	Chloride	20	1	mg/L	E300.0
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Chloride	21	1	mg/L	E300.0
LYS-02	Natural Sample	H15050137-002	7-May-15	Chloride	37	1	mg/L	E300.0
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Chloride	98	1	mg/L	E300.0
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Chloride	ND	1	mg/L	E300.0
LYS-04	Natural Sample	H15050137-004	7-May-15	Chloride	4	1	mg/L	E300.0
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Chloride	4	1	mg/L	E300.0
LYS-05	Natural Sample	H15050137-005	7-May-15	Chloride	5	1	mg/L	E300.0
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Chloride	5	1	mg/L	E300.0
LYS-06	Natural Sample	H15050137-006	7-May-15	Chloride	31	1	mg/L	E300.0
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Chloride	10	1	mg/L	E300.0
LYS-08	Natural Sample	H15050137-008	7-May-15	Chloride	62	1	mg/L	E300.0
LYS-01	Natural Sample	H15050137-001	7-May-15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYS-03	Natural Sample	H15050137-003	7-May-15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Chromium, Dissolved	ND	0.01	mg/L	E200.8
LYS-01	Natural Sample	H15050137-001	7-May-15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYS-03	Natural Sample	H15050137-003	7-May-15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Cobalt, Dissolved	ND	0.01	mg/L	E200.8
LYS-01	Natural Sample	H15050137-001	7-May-15	Copper, Dissolved	ND	0.001	mg/L	E200.8

LYS-01	Natural Sample	H15090363-001	15-Sep-15	Copper, Dissolved	ND	0.001	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Copper, Dissolved	0.009	0.001	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Copper, Dissolved	0.008	0.001	mg/L	E200.8
LYS-03	Natural Sample	H15050137-003	7-May-15	Copper, Dissolved	0.002	0.001	mg/L	E200.8
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Copper, Dissolved	0.002	0.001	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Copper, Dissolved	0.007	0.001	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Copper, Dissolved	0.007	0.001	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Copper, Dissolved	0.01	0.001	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Copper, Dissolved	0.009	0.001	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Copper, Dissolved	0.007	0.001	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Copper, Dissolved	0.007	0.001	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Copper, Dissolved	0.004	0.001	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Copper, Dissolved	0.004	0.001	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Copper, Dissolved	0.001	0.001	mg/L	E200.8
LYS-01	Natural Sample	H15050137-001	7-May-15	Hardness as CaCO3	273	1	mg/L	A2340 B
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Hardness as CaCO3	326	1	mg/L	A2340 B
LYS-02	Natural Sample	H15050137-002	7-May-15	Hardness as CaCO3	1550	1	mg/L	A2340 B
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Hardness as CaCO3	2250	1	mg/L	A2340 B
LYS-03	Natural Sample	H15050137-003	7-May-15	Hardness as CaCO3	123	1	mg/L	A2340 B
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Hardness as CaCO3	227	1	mg/L	A2340 B
LYS-04	Natural Sample	H15050137-004	7-May-15	Hardness as CaCO3	408	1	mg/L	A2340 B
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Hardness as CaCO3	401	1	mg/L	A2340 B
LYS-05	Natural Sample	H15050137-005	7-May-15	Hardness as CaCO3	1650	1	mg/L	A2340 B
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Hardness as CaCO3	1610	1	mg/L	A2340 B
LYS-06	Natural Sample	H15050137-006	7-May-15	Hardness as CaCO3	693	1	mg/L	A2340 B
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Hardness as CaCO3	540	1	mg/L	A2340 B
LYS-07	Natural Sample	H15050137-007	7-May-15	Hardness as CaCO3	877	1	mg/L	A2340 B
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Hardness as CaCO3	988	1	mg/L	A2340 B
LYS-08	Natural Sample	H15050137-008	7-May-15	Hardness as CaCO3	904	1	mg/L	A2340 B
LYS-01	Natural Sample	H15050137-001	7-May-15	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYS-02	Natural Sample	H15050137-002	7-May-15	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYS-03	Natural Sample	H15050137-003	7-May-15	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYS-04	Natural Sample	H15050137-004	7-May-15	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYS-05	Natural Sample	H15050137-005	7-May-15	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYS-06	Natural Sample	H15050137-006	7-May-15	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYS-07	Natural Sample	H15050137-007	7-May-15	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYS-08	Natural Sample	H15050137-008	7-May-15	Iron, Dissolved	ND	0.02	mg/L	E200.7
LYS-01	Natural Sample	H15050137-001	7-May-15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Lead, Dissolved	ND	0.0003	mg/L	E200.8

LYS-03	Natural Sample	H15050137-003	7-May-15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Lead, Dissolved	ND	0.0003	mg/L	E200.8
LYS-01	Natural Sample	H15050137-001	7-May-15	Magnesium, Dissolved	18	1	mg/L	E200.7
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Magnesium, Dissolved	21	1	mg/L	E200.7
LYS-02	Natural Sample	H15050137-002	7-May-15	Magnesium, Dissolved	181	1	mg/L	E200.7
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Magnesium, Dissolved	286	1	mg/L	E200.7
LYS-03	Natural Sample	H15050137-003	7-May-15	Magnesium, Dissolved	7	1	mg/L	E200.7
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Magnesium, Dissolved	14	1	mg/L	E200.7
LYS-04	Natural Sample	H15050137-004	7-May-15	Magnesium, Dissolved	36	1	mg/L	E200.7
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Magnesium, Dissolved	35	1	mg/L	E200.7
LYS-05	Natural Sample	H15050137-005	7-May-15	Magnesium, Dissolved	133	1	mg/L	E200.7
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Magnesium, Dissolved	131	1	mg/L	E200.7
LYS-06	Natural Sample	H15050137-006	7-May-15	Magnesium, Dissolved	37	1	mg/L	E200.7
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Magnesium, Dissolved	31	1	mg/L	E200.7
LYS-07	Natural Sample	H15050137-007	7-May-15	Magnesium, Dissolved	64	1	mg/L	E200.7
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Magnesium, Dissolved	70	1	mg/L	E200.7
LYS-08	Natural Sample	H15050137-008	7-May-15	Magnesium, Dissolved	101	1	mg/L	E200.7
LYS-01	Natural Sample	H15050137-001	7-May-15	Manganese, Dissolved	ND	0.001	mg/L	E200.8
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Manganese, Dissolved	ND	0.001	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Manganese, Dissolved	ND	0.001	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Manganese, Dissolved	ND	0.001	mg/L	E200.8
LYS-03	Natural Sample	H15050137-003	7-May-15	Manganese, Dissolved	0.001	0.001	mg/L	E200.8
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Manganese, Dissolved	0.002	0.001	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Manganese, Dissolved	ND	0.001	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Manganese, Dissolved	ND	0.001	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Manganese, Dissolved	ND	0.001	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Manganese, Dissolved	ND	0.001	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Manganese, Dissolved	0.003	0.001	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Manganese, Dissolved	0.001	0.001	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Manganese, Dissolved	ND	0.001	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Manganese, Dissolved	0.002	0.001	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Manganese, Dissolved	0.007	0.001	mg/L	E200.8
LYS-01	Natural Sample	H15050137-001	7-May-15	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Mercury, Dissolved	ND	0.000005	mg/L	E245.1
LYS-02	Natural Sample	H15050137-002	7-May-15	Mercury, Dissolved	0.000024	0.000005	mg/L	E245.1
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Mercury, Dissolved	0.000006	0.000005	mg/L	E245.1
LYS-03	Natural Sample	H15050137-003	7-May-15	Mercury, Dissolved	0.000011	0.000005	mg/L	E245.1
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Mercury, Dissolved	ND	0.0001	mg/L	E245.1
LYS-04	Natural Sample	H15050137-004	7-May-15	Mercury, Dissolved	0.000005	0.000005	mg/L	E245.1

LYS-04	Natural Sample	H15090363-004	15-Sep-15	Mercury, Dissolved	0.000046	0.000005	mg/L	E245.1
LYS-05	Natural Sample	H15050137-005	7-May-15	Mercury, Dissolved	0.00004	0.000005	mg/L	E245.1
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Mercury, Dissolved	ND	0.00002	mg/L	E245.1
LYS-06	Natural Sample	H15050137-006	7-May-15	Mercury, Dissolved	0.000009	0.000005	mg/L	E245.1
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Mercury, Dissolved	ND	0.0001	mg/L	E245.1
LYS-07	Natural Sample	H15050137-007	7-May-15	Mercury, Dissolved	0.000006	0.000005	mg/L	E245.1
LYS-08	Natural Sample	H15050137-008	7-May-15	Mercury, Dissolved	0.000006	0.000005	mg/L	E245.1
LYS-01	Natural Sample	H15050137-001	7-May-15	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Molybdenum, Dissolved	0.045	0.005	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Molybdenum, Dissolved	0.062	0.005	mg/L	E200.8
LYS-03	Natural Sample	H15050137-003	7-May-15	Molybdenum, Dissolved	0.017	0.005	mg/L	E200.8
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Molybdenum, Dissolved	0.037	0.005	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Molybdenum, Dissolved	ND	0.005	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Molybdenum, Dissolved	0.026	0.005	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Molybdenum, Dissolved	0.024	0.005	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Molybdenum, Dissolved	0.008	0.005	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Molybdenum, Dissolved	0.013	0.005	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Molybdenum, Dissolved	0.106	0.005	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Molybdenum, Dissolved	0.09	0.005	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Molybdenum, Dissolved	0.007	0.005	mg/L	E200.8
LYS-01	Natural Sample	H15050137-001	7-May-15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYS-03	Natural Sample	H15050137-003	7-May-15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Nickel, Dissolved	ND	0.002	mg/L	E200.8
LYS-01	Natural Sample	H15050137-001	7-May-15	Potassium, Dissolved	2	1	mg/L	E200.7
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Potassium, Dissolved	3	1	mg/L	E200.7
LYS-02	Natural Sample	H15050137-002	7-May-15	Potassium, Dissolved	2	1	mg/L	E200.7
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Potassium, Dissolved	3	1	mg/L	E200.7
LYS-03	Natural Sample	H15050137-003	7-May-15	Potassium, Dissolved	3	1	mg/L	E200.7
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Potassium, Dissolved	3	1	mg/L	E200.7
LYS-04	Natural Sample	H15050137-004	7-May-15	Potassium, Dissolved	12	1	mg/L	E200.7
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Potassium, Dissolved	15	1	mg/L	E200.7
LYS-05	Natural Sample	H15050137-005	7-May-15	Potassium, Dissolved	22	1	mg/L	E200.7
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Potassium, Dissolved	22	1	mg/L	E200.7
LYS-06	Natural Sample	H15050137-006	7-May-15	Potassium, Dissolved	ND	1	mg/L	E200.7

LYS-06	Natural Sample	H15090363-006	15-Sep-15	Potassium, Dissolved	ND	1	mg/L	E200.7
LYS-07	Natural Sample	H15050137-007	7-May-15	Potassium, Dissolved	9	1	mg/L	E200.7
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Potassium, Dissolved	10	1	mg/L	E200.7
LYS-08	Natural Sample	H15050137-008	7-May-15	Potassium, Dissolved	6	1	mg/L	E200.7
LYS-01	Natural Sample	H15050137-001	7-May-15	Selenium, Dissolved	0.005	0.001	mg/L	E200.8
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Selenium, Dissolved	0.005	0.001	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Selenium, Dissolved	0.018	0.001	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Selenium, Dissolved	0.046	0.001	mg/L	E200.8
LYS-03	Natural Sample	H15050137-003	7-May-15	Selenium, Dissolved	ND	0.001	mg/L	E200.8
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Selenium, Dissolved	ND	0.001	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Selenium, Dissolved	0.003	0.001	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Selenium, Dissolved	0.003	0.001	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Selenium, Dissolved	0.009	0.001	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Selenium, Dissolved	0.009	0.001	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Selenium, Dissolved	ND	0.001	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Selenium, Dissolved	0.002	0.001	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Selenium, Dissolved	0.002	0.001	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Selenium, Dissolved	0.002	0.001	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Selenium, Dissolved	0.012	0.001	mg/L	E200.8
LYS-01	Natural Sample	H15050137-001	7-May-15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYS-03	Natural Sample	H15050137-003	7-May-15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Silver, Dissolved	ND	0.0002	mg/L	E200.8
LYS-01	Natural Sample	H15050137-001	7-May-15	Sodium, Dissolved	30	1	mg/L	E200.7
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Sodium, Dissolved	36	1	mg/L	E200.7
LYS-02	Natural Sample	H15050137-002	7-May-15	Sodium, Dissolved	2240	1	mg/L	E200.7
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Sodium, Dissolved	3360	1	mg/L	E200.7
LYS-03	Natural Sample	H15050137-003	7-May-15	Sodium, Dissolved	43	1	mg/L	E200.7
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Sodium, Dissolved	69	1	mg/L	E200.7
LYS-04	Natural Sample	H15050137-004	7-May-15	Sodium, Dissolved	156	1	mg/L	E200.7
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Sodium, Dissolved	166	1	mg/L	E200.7
LYS-05	Natural Sample	H15050137-005	7-May-15	Sodium, Dissolved	1110	1	mg/L	E200.7
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Sodium, Dissolved	1070	1	mg/L	E200.7
LYS-06	Natural Sample	H15050137-006	7-May-15	Sodium, Dissolved	238	1	mg/L	E200.7
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Sodium, Dissolved	195	1	mg/L	E200.7
LYS-07	Natural Sample	H15050137-007	7-May-15	Sodium, Dissolved	701	1	mg/L	E200.7
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Sodium, Dissolved	689	1	mg/L	E200.7

LYS-08	Natural Sample	H15050137-008	7-May-15	Sodium, Dissolved	126	1	mg/L	E200.7
LYS-01	Natural Sample	H15050137-001	7-May-15	Sulfate	189	1	mg/L	E300.0
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Sulfate	182	1	mg/L	E300.0
LYS-02	Natural Sample	H15050137-002	7-May-15	Sulfate	6130	1	mg/L	E300.0
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Sulfate	9090	2	mg/L	E300.0
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Sulfate	124	1	mg/L	E300.0
LYS-04	Natural Sample	H15050137-004	7-May-15	Sulfate	484	1	mg/L	E300.0
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Sulfate	452	1	mg/L	E300.0
LYS-05	Natural Sample	H15050137-005	7-May-15	Sulfate	4220	1	mg/L	E300.0
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Sulfate	3970	1	mg/L	E300.0
LYS-06	Natural Sample	H15050137-006	7-May-15	Sulfate	1170	1	mg/L	E300.0
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Sulfate	934	1	mg/L	E300.0
LYS-08	Natural Sample	H15050137-008	7-May-15	Sulfate	800	1	mg/L	E300.0
LYS-01	Natural Sample	H15050137-001	7-May-15	Uranium, Dissolved	0.0619	0.0002	mg/L	E200.8
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Uranium, Dissolved	0.0787	0.0002	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Uranium, Dissolved	0.806	0.0002	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Uranium, Dissolved	1.65	0.0002	mg/L	E200.8
LYS-03	Natural Sample	H15050137-003	7-May-15	Uranium, Dissolved	0.0021	0.0002	mg/L	E200.8
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Uranium, Dissolved	0.0076	0.0002	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Uranium, Dissolved	0.0274	0.0002	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Uranium, Dissolved	0.0269	0.0002	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Uranium, Dissolved	1.86	0.0002	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Uranium, Dissolved	1.7	0.0002	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Uranium, Dissolved	0.0023	0.0002	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Uranium, Dissolved	0.0011	0.0002	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Uranium, Dissolved	0.207	0.0002	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Uranium, Dissolved	0.279	0.0002	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Uranium, Dissolved	0.128	0.0002	mg/L	E200.8
LYS-01	Natural Sample	H15050137-001	7-May-15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYS-03	Natural Sample	H15050137-003	7-May-15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYS-03	Natural Sample	H15090363-003	15-Sep-15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Vanadium, Dissolved	ND	0.1	mg/L	E200.8
LYS-01	Natural Sample	H15050137-001	7-May-15	Zinc, Dissolved	ND	0.008	mg/L	E200.8
LYS-01	Natural Sample	H15090363-001	15-Sep-15	Zinc, Dissolved	ND	0.008	mg/L	E200.8
LYS-02	Natural Sample	H15050137-002	7-May-15	Zinc, Dissolved	0.014	0.008	mg/L	E200.8
LYS-02	Natural Sample	H15090363-002	15-Sep-15	Zinc, Dissolved	ND	0.008	mg/L	E200.8
LYS-03	Natural Sample	H15050137-003	7-May-15	Zinc, Dissolved	0.008	0.008	mg/L	E200.8

LYS-03	Natural Sample	H15090363-003	15-Sep-15	Zinc, Dissolved	ND	0.008	mg/L	E200.8
LYS-04	Natural Sample	H15050137-004	7-May-15	Zinc, Dissolved	0.013	0.008	mg/L	E200.8
LYS-04	Natural Sample	H15090363-004	15-Sep-15	Zinc, Dissolved	0.009	0.008	mg/L	E200.8
LYS-05	Natural Sample	H15050137-005	7-May-15	Zinc, Dissolved	0.014	0.008	mg/L	E200.8
LYS-05	Natural Sample	H15090363-005	15-Sep-15	Zinc, Dissolved	0.011	0.008	mg/L	E200.8
LYS-06	Natural Sample	H15050137-006	7-May-15	Zinc, Dissolved	0.028	0.008	mg/L	E200.8
LYS-06	Natural Sample	H15090363-006	15-Sep-15	Zinc, Dissolved	ND	0.008	mg/L	E200.8
LYS-07	Natural Sample	H15050137-007	7-May-15	Zinc, Dissolved	ND	0.008	mg/L	E200.8
LYS-07	Natural Sample	H15090363-007	15-Sep-15	Zinc, Dissolved	0.072	0.008	mg/L	E200.8
LYS-08	Natural Sample	H15050137-008	7-May-15	Zinc, Dissolved	ND	0.008	mg/L	E200.8

ND Not detected at analytical reporting limit.

APPENDIX G

MACROINVERTEBRATE DATA

Table G1. Macroinvertebrate monitoring data from the Streamside Tailings Operable Unit, 2015. Samples were analyzed (method 10300-C) by Rhithron Associates (Missoula, Montana). Result values represent species counts.

Site	Date	Biological Taxonomic Name	Result Value	Analysis Start Date	Laboratory Sample ID	Result Comment
SS-01	9-Sep-15	Amiocentrus aspilus	3	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Apsectrotanypus	3	3/1/2016	CC15SBC001	Radotanypus
SS-01	9-Sep-15	Atractides	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Baetis	5	3/1/2016	CC15SBC001	Baetis Rhodani Gr.
SS-01	9-Sep-15	Brachycentrus americanus	20	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Brillia	2	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Brychius	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Ceratopogoninae	2	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Chironomini	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Chironomus	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Cleptelmis addenda	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Cricotopus	3	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Cricotopus bicinctus	5	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Cricotopus trifascia	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Cryptochironomus	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Diamesa	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Dicranota	2	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Diplocladius cultriger	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Doncricotopus bicaudatus	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Lebertia	9	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Lepidostoma	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Muscidae	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Naididae	9	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Nais	21	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Nemata	7	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Neoplasta	6	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Ophidonais serpentina	4	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Optioservus	78	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Orthocladiinae	13	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Orthocladius	41	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Ostracoda	2	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Pagastia	6	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Paracladopelma	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Parametriocnemus	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Pericoma	1	3/1/2016	CC15SBC001	Pericoma / Telmatoscopus

SS-01	9-Sep-15	Physella	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Pisidium	4	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Prodiamesa	2	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Rheotanytarsus	2	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Saetheria	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Simulium	3	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Sperchon	30	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Stagnicola	3	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Tanypodinae	1	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Thienemannimyia	3	3/1/2016	CC15SBC001	Thienemannimyia Group
SS-01	9-Sep-15	Tipula	6	3/1/2016	CC15SBC001	
SS-01	9-Sep-15	Zaitzevia	3	3/1/2016	CC15SBC001	
SS-05A	9-Sep-15	Amiocentrus aspilus	8	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Baetis	3	3/1/2016	CC15SBC002	Baetis Rhodani Gr.
SS-05A	9-Sep-15	Brachycentrus americanus	3	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Cheumatopsyche	1	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Chironomini	1	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Cricotopus (Cricotopus)	6	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Cricotopus trifascia	6	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Cryptochironomus	1	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Enchytraeus	2	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Gyraulus	10	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Hydropsyche	2	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Hygrobates	70	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Lebertia	11	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Monodiamesa	1	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Muscidae	4	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Naididae	18	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Nais	5	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Nemata	1	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Neoplasta	1	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Oecetis	5	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Ophidonais serpentina	2	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Optioservus	36	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Orthocladiinae	1	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Orthocladius	8	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Pagastia	3	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Pericoma	1	3/1/2016	CC15SBC002	Pericoma / Telmatoscopus
SS-05A	9-Sep-15	Physella	1	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Pisidium	1	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Potthastia longimana	2	3/1/2016	CC15SBC002	Potthastia Longimanus Group

SS-05A	9-Sep-15	Simulium	5	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Sperchon	71	3/1/2016	CC15SBC002	
SS-05A	9-Sep-15	Stagnicola	28	3/1/2016	CC15SBC002	
SS-06G	9-Sep-15	Amiocentrus aspilus	1	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Baetis	2	3/1/2016	CC15SBC003	Baetis Rhodani Gr.
SS-06G	9-Sep-15	Cheumatopsyche	13	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Cleptelmis addenda	2	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Corixidae	1	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Hydropsyche	71	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Hygrobates	16	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Naididae	11	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Nemata	3	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Oecetis	13	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Optioservus	114	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Orthocladius	2	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Pagastia	3	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Parametriocnemus	1	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Physella	1	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Pisidium	10	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Simulium	3	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Sperchon	12	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Stagnicola	17	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Thienemannimyia	1	3/1/2016	CC15SBC003	Thienemannimyia Group
SS-06G	9-Sep-15	Tipula	5	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Trepaxonemata	2	3/1/2016	CC15SBC003	
SS-06G	9-Sep-15	Zaitzevia	2	3/1/2016	CC15SBC003	
SS-07	9-Sep-15	Aulodrilus	1	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Cardiocladius	1	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Chironomus	122	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Cricotopus (Cricotopus)	2	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Cricotopus bicinctus	10	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Cricotopus trifascia	1	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Erpobdella	1	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Eukiefferiella	1	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Eukiefferiella claripennis	2	3/1/2016	CC15SBC004	Eukiefferiella Claripennis Group
SS-07	9-Sep-15	Helobdella stagnalis	2	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Hygrobates	8	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Naididae	39	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Nais	21	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Nemata	15	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Neoplasta	1	3/1/2016	CC15SBC004	

SS-07	9-Sep-15	Optioservus	20	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Orthocladiinae	1	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Orthocladius	3	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Pagastia	6	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Parametriocnemus	1	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Phaenopsectra	2	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Pisidium	17	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Sigara	2	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Simulium	24	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Sperchon	2	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Stagnicola	2	3/1/2016	CC15SBC004	
SS-07	9-Sep-15	Thienemannimyia	3	3/1/2016	CC15SBC004	Thienemannimyia Group
SS-07	9-Sep-15	Tvetenia bavarica	1	3/1/2016	CC15SBC004	Tvetenia Bavarica Group
SS-08	9-Sep-15	Cheumatopsyche	2	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Chironomus	1	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Cricotopus (Isocladius)	2	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Cricotopus bicinctus	2	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Dina dubia	28	3/1/2016	CC15SBC005	Erpobdella dubia
SS-08	9-Sep-15	Gyraulus	3	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Haliplus	2	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Helobdella stagnalis	44	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Hydropsyche	2	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Hygrobates	4	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Lebertia	2	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Micropsectra	74	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Naididae	54	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Nais	16	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Oecetis	1	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Ophidonais serpentina	39	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Optioservus	1	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Phaenopsectra	1	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Physella	2	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Pisidium	25	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Simulium	1	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Sperchon	1	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Stagnicola	1	3/1/2016	CC15SBC005	
SS-08	9-Sep-15	Tanytarsini	2	3/1/2016	CC15SBC005	
SS-08_	9-Sep-15	Trepaxonemata	1	3/1/2016	CC15SBC005	
SS-10A	9-Sep-15	Baetis tricaudatus	1	3/1/2016	CC15SBC006	Baetis tricaudatus complex
SS-10A	9-Sep-15	Caecidotea	3	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Caenis	1	3/1/2016	CC15SBC006	

SS-10A	9-Sep-15	Cheumatopsyche	5	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Chironomus	1	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Coenagrionidae	3	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Cricotopus	1	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Cricotopus (Cricotopus)	1	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Cricotopus bicinctus	37	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Cricotopus trifascia	26	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Dina dubia	2	3/1/2016	CC15SBC006	Erpobdella dubia
SS-10A	9-Sep-15	Dixella	1	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Gyraulus	34	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Haliplus	1	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Helobdella stagnalis	1	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Hygrobates	25	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Iswaeon	1	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Lebertia	1	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Micropsectra	3	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Naididae	10	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Nemata	1	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Oecetis	9	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Ophidonais serpentina	1	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Orthocladiinae	14	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Orthocladius	33	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Physella	15	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Pisidium	36	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Sigara	1	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Simulium	34	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Sperchon	4	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Stagnicola	13	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Tanypodinae	1	3/1/2016	CC15SBC006	
SS-10A	9-Sep-15	Thienemannimyia	8	3/1/2016	CC15SBC006	Thienemannimyia Group
SS-10B	9-Sep-15	Caecidotea	1	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Caenis	1	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Callibaetis	1	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Cheumatopsyche	6	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Coenagrionidae	2	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Corixidae	7	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Cricotopus bicinctus	51	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Cricotopus trifascia	18	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Cryptochironomus	2	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Erpobdella punctata	5	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Gyraulus	14	3/2/2016	CC15SBC007	

SS-10B	9-Sep-15	Hyalella	1	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Hygrobates	25	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Iswaeon	1	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Lebertia	2	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Micropsectra	3	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Microtendipes	1	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Naididae	31	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Oecetis	19	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Orthocladiinae	11	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Orthocladius	43	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Phaenopsectra	2	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Physella	10	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Pisidium	8	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Sigara	12	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Simulium	4	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Sperchon	5	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Stagnicola	22	3/2/2016	CC15SBC007	
SS-10B	9-Sep-15	Thienemannimyia	14	3/2/2016	CC15SBC007	Thienemannimyia Group
SS-11C	9-Sep-15	Baetis	1	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Brachycentrus occidentalis	6	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Cheumatopsyche	63	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Cricotopus (Cricotopus)	1	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Cricotopus trifascia	3	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Ephemerellidae	1	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Gyraulus	1	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Helicopsyche	38	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Hydropsyche	31	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Hygrobates	52	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Iswaeon	1	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Lymnaeidae	2	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Microtendipes	26	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Naididae	33	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Nemata	1	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Oecetis	8	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Optioservus	3	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Petrophila	3	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Physella	1	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Pisidiidae	2	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Simulium	21	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Sperchon	18	3/1/2016	CC15SBC008	
SS-11C	9-Sep-15	Stagnicola	7	3/1/2016	CC15SBC008	

SS-11C	9-Sep-15	Thienemannimyia	2	3/1/2016	CC15SBC008	Thienemannimyia Group
SS-11D	9-Sep-15	Baetis tricaudatus	3	3/1/2016	CC15SBC009	Baetis tricaudatus complex
SS-11D	9-Sep-15	Caecidotea	4	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Cheumatopsyche	113	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Copepoda	1	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Cricotopus trifascia	4	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Eukiefferiella brehmi	4	3/1/2016	CC15SBC009	Eukiefferiella Brehmi Group
SS-11D	9-Sep-15	Galba	3	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Gyraulus	1	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Helicopsyche	24	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Hyalella	1	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Hydropsyche	4	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Hygrobates	22	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Iswaeon	1	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Microtendipes	16	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Muscidae	1	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Naididae	19	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Oecetis	5	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Optioservus	8	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Ostracoda	1	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Parametriocnemus	6	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Pentaneura	1	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Phaenopsectra	1	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Physella	2	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Pisidiidae	15	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Polycelis	1	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Pseudosmittia	1	3/1/2016	CC15SBC009	Allocladius (Kieffer, 1913)
SS-11D	9-Sep-15	Simulium	13	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Sperchon	3	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Thienemanniella	3	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Thienemannimyia	29	3/1/2016	CC15SBC009	Thienemannimyia Group
SS-11D	9-Sep-15	Tricorythodes	2	3/1/2016	CC15SBC009	
SS-11D	9-Sep-15	Tvetenia bavarica	1	3/1/2016	CC15SBC009	Tvetenia Bavarica Group
SS-13	8-Sep-15	Brachycentrus occidentalis	4	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Caecidotea	1	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Cheumatopsyche	57	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Cricotopus trifascia	3	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Eukiefferiella brehmi	1	3/1/2016	CC15SBC010	Eukiefferiella Brehmi Group
SS-13	8-Sep-15	Galba	2	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Gyraulus	1	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Helicopsyche	33	3/1/2016	CC15SBC010	

SS-13	8-Sep-15	Hyalella	1	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Hydropsyche	124	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Hygrobates	24	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Microtendipes	18	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Naididae	16	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Oecetis	3	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Optioservus	2	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Orthocladiinae	1	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Orthocladius	3	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Pagastia	1	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Pisidiidae	1	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Simulium	4	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Sperchon	3	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Thienemannimyia	4	3/1/2016	CC15SBC010	Thienemannimyia Group
SS-13	8-Sep-15	Trepaxonemata	2	3/1/2016	CC15SBC010	
SS-13	8-Sep-15	Tvetenia bavarica	3	3/1/2016	CC15SBC010	Tvetenia Bavarica Group
SS-14	8-Sep-15	Brachycentrus occidentalis	5	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Cheumatopsyche	27	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Cricotopus (Cricotopus)	4	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Cricotopus trifascia	11	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Enchytraeus	1	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Erpobdellidae	3	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Eukiefferiella brehmi	2	3/2/2016	CC15SBC011	Eukiefferiella Brehmi Group
SS-14	8-Sep-15	Helicopsyche	71	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Hydropsyche	44	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Hygrobates	26	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Iswaeon	2	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Lebertia	1	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Lepidostoma	2	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Micropsectra	7	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Microtendipes	75	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Naididae	5	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Nectopsyche	1	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Oecetis	1	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Orthocladiinae	1	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Orthocladius	4	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Parametriocnemus	1	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Phaenopsectra	1	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Physella	3	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Sigara	1	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Simulium	2	3/2/2016	CC15SBC011	

SS-14	8-Sep-15	Sperchon	1	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Thienemannimyia	9	3/2/2016	CC15SBC011	Thienemannimyia Group
SS-14	8-Sep-15	Tricorythodes	2	3/2/2016	CC15SBC011	
SS-14	8-Sep-15	Tvetenia bavarica	3	3/2/2016	CC15SBC011	Tvetenia Bavarica Group
SS-15A	8-Sep-15	Atherix	6	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Baetis tricaudatus	21	3/1/2016	CC15SBC012	Baetis tricaudatus complex
SS-15A	8-Sep-15	Cricotopus trifascia	2	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Eukiefferiella	1	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Eukiefferiella brehmi	2	3/1/2016	CC15SBC012	Eukiefferiella Brehmi Group
SS-15A	8-Sep-15	Eukiefferiella claripennis	2	3/1/2016	CC15SBC012	Eukiefferiella Claripennis Group
SS-15A	8-Sep-15	Galba	3	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Helicopsyche	41	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Hydropsyche	135	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Hygrobates	1	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Lepidostoma	71	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Lymnaeidae	1	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Micropsectra	1	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Microtendipes	6	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Naididae	1	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Oecetis	1	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Optioservus	2	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Orthocladiinae	2	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Pagastia	1	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Physella	3	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Simulium	9	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Sperchon	1	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Tanytarsini	1	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Thienemanniella	1	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Tipula	1	3/1/2016	CC15SBC012	
SS-15A	8-Sep-15	Tvetenia bavarica	3	3/1/2016	CC15SBC012	Tvetenia Bavarica Group
SS-15B	8-Sep-15	Amiocentrus aspilus	3	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Atherix	1	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Baetis tricaudatus	2	3/2/2016	CC15SBC013	Baetis tricaudatus complex
SS-15B	8-Sep-15	Brachycentrus occidentalis	9	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Cinygmula	1	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Cricotopus (Cricotopus)	1	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Drunella grandis	2	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Eukiefferiella brehmi	2	3/2/2016	CC15SBC013	Eukiefferiella Brehmi Group
SS-15B	8-Sep-15	Eukiefferiella brevicalcar	1	3/2/2016	CC15SBC013	Eukiefferiella Brevicalcar Group
SS-15B	8-Sep-15	Eukiefferiella claripennis	1	3/2/2016	CC15SBC013	Eukiefferiella Claripennis Group
SS-15B	8-Sep-15	Eukiefferiella devonica	3	3/2/2016	CC15SBC013	Eukiefferiella Devonica Group

SS-15B	8-Sep-15	Galba	1	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Helicopsyche	11	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Hesperoperla pacifica	1	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Heterlimnius corpulentus	4	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Hydropsyche	154	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Lebertia	1	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Lepidostoma	51	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Micrasema	3	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Micropsectra	1	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Microtendipes	2	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Naididae	10	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Optioservus	27	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Orthocladiinae	1	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Orthocladius	2	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Pagastia	1	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Parametriocnemus	1	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Simulium	11	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Tanytarsus	1	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Tvetenia bavarica	1	3/2/2016	CC15SBC013	Tvetenia Bavarica Group
SS-15B	8-Sep-15	Zaitzevia	2	3/2/2016	CC15SBC013	
SS-15B	8-Sep-15	Zapada	1	3/2/2016	CC15SBC013	
SS-15G	8-Sep-15	Arctopsyche	6	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Atherix	5	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Baetis tricaudatus	29	3/1/2016	CC15SBC014	Baetis tricaudatus complex
SS-15G	8-Sep-15	Brillia	1	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Ceratopogoninae	2	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Cinygmula	51	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Cleptelmis addenda	4	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Drunella	1	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Drunella doddsii	1	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Glossosoma	2	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Helicopsyche	2	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Hesperoperla pacifica	22	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Heterlimnius corpulentus	17	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Hexatoma	5	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Hydropsyche	20	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Lara avara	2	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Lepidostoma	63	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Mesenchytraeus	8	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Micrasema	2	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Micropsectra	4	3/1/2016	CC15SBC014	

SS-15G	8-Sep-15	Narpus concolor	3	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Oecetis	1	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Optioservus	17	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Paraleptophlebia	1	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Pericoma	1	3/1/2016	CC15SBC014	Pericoma / Telmatoscopus
SS-15G	8-Sep-15	Pisidium	3	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Protzia	2	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Rhithrogena	10	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Simulium	3	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Sperchonopsis	2	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Sweltsa	1	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Tipula	2	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Tvetenia bavarica	2	3/1/2016	CC15SBC014	Tvetenia Bavarica Group
SS-15G	8-Sep-15	Zaitzevia	4	3/1/2016	CC15SBC014	
SS-15G	8-Sep-15	Zapada cinctipes	20	3/1/2016	CC15SBC014	
SS-16B	8-Sep-15	Brachycentrus occidentalis	50	3/2/2016	CC15SBC015	
SS-16B	8-Sep-15	Diphetor hageni	1	3/2/2016	CC15SBC015	
SS-16B	8-Sep-15	Glossosoma	1	3/2/2016	CC15SBC015	
SS-16B	8-Sep-15	Helicopsyche	147	3/2/2016	CC15SBC015	
SS-16B	8-Sep-15	Hydropsyche	19	3/2/2016	CC15SBC015	
SS-16B	8-Sep-15	Lepidostoma	40	3/2/2016	CC15SBC015	
SS-16B	8-Sep-15	Micropsectra	1	3/2/2016	CC15SBC015	
SS-16B	8-Sep-15	Microtendipes	5	3/2/2016	CC15SBC015	
SS-16B	8-Sep-15	Naididae	10	3/2/2016	CC15SBC015	
SS-16B	8-Sep-15	Nemata	2	3/2/2016	CC15SBC015	
SS-16B	8-Sep-15	Optioservus	7	3/2/2016	CC15SBC015	
SS-16B	8-Sep-15	Pagastia	6	3/2/2016	CC15SBC015	
SS-16B	8-Sep-15	Parametriocnemus	1	3/2/2016	CC15SBC015	
SS-16B	8-Sep-15	Simulium	16	3/2/2016	CC15SBC015	
SS-16B	8-Sep-15	Stagnicola	2	3/2/2016	CC15SBC015	
SS-16B	8-Sep-15	Thienemannimyia	2	3/2/2016	CC15SBC015	Thienemannimyia Group
SS-17D	8-Sep-15	Brachycentrus occidentalis	75	3/2/2016	CC15SBC016	
SS-17D	8-Sep-15	Glossosoma	1	3/2/2016	CC15SBC016	
SS-17D	8-Sep-15	Helicopsyche	89	3/2/2016	CC15SBC016	
SS-17D	8-Sep-15	Hydropsyche	63	3/2/2016	CC15SBC016	
SS-17D	8-Sep-15	Laccobius	1	3/2/2016	CC15SBC016	
SS-17D	8-Sep-15	Lepidostoma	23	3/2/2016	CC15SBC016	
SS-17D	8-Sep-15	Micropsectra	1	3/2/2016	CC15SBC016	
SS-17D	8-Sep-15	Microtendipes	50	3/2/2016	CC15SBC016	
SS-17D	8-Sep-15	Naididae	1	3/2/2016	CC15SBC016	
SS-17D	8-Sep-15	Oecetis	1	3/2/2016	CC15SBC016	

SS-17D	8-Sep-15	Optioservus	5	3/2/2016	CC15SBC016	
SS-17D	8-Sep-15	Orthocladiinae	1	3/2/2016	CC15SBC016	
SS-17D	8-Sep-15	Pagastia	2	3/2/2016	CC15SBC016	
SS-17D	8-Sep-15	Pericoma	1	3/2/2016	CC15SBC016	Pericoma / Telmatoscopus
SS-17D	8-Sep-15	Physella	3	3/2/2016	CC15SBC016	
SS-17D	8-Sep-15	Simulium	11	3/2/2016	CC15SBC016	
SS-17D	8-Sep-15	Thienemannimyia	1	3/2/2016	CC15SBC016	Thienemannimyia Group
SS-17D	8-Sep-15	Tipula	1	3/2/2016	CC15SBC016	
SS-19	8-Sep-15	Apsectrotanypus	1	3/2/2016	CC15SBC017	Radotanypus
SS-19	8-Sep-15	Baetis tricaudatus	6	3/2/2016	CC15SBC017	Baetis tricaudatus complex
SS-19	8-Sep-15	Brachycentrus occidentalis	17	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Cricotopus (Cricotopus)	1	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Ephemerella	1	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Eukiefferiella claripennis	1	3/2/2016	CC15SBC017	Eukiefferiella Claripennis Group
SS-19	8-Sep-15	Eukiefferiella devonica	1	3/2/2016	CC15SBC017	Eukiefferiella Devonica Group
SS-19	8-Sep-15	Glossosomatidae	1	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Helicopsyche	8	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Hydropsyche	17	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Iswaeon	1	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Lepidostoma	5	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Leptoceridae	1	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Micropsectra	1	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Microtendipes	182	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Naididae	50	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Odontomesa	1	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Oecetis	2	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Optioservus	1	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Orthocladius	2	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Parametriocnemus	2	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Paraphaenocladius	1	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Physella	8	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Psychoglypha	1	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Simulium	1	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Skwala	1	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Thienemannimyia	1	3/2/2016	CC15SBC017	Thienemannimyia Group
SS-19	8-Sep-15	Tipula	2	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Tricorythodes	2	3/2/2016	CC15SBC017	
SS-19	8-Sep-15	Tvetenia vitracies	3	3/2/2016	CC15SBC017	

APPENDIX H

PERIPHYTON DATA

Table H1. Periphyton monitoring data from the Streamside Tailings Operable Unit, 2015. Samples were analyzed by RESPEC (Helena, Montana). Result values represent species counts.

Site	Date	Biological Taxonomic Name	Result Value	Analysis Start Date
SS-01	9-Sep-15	Achnanthidium minutissimum	2	17-Feb-16
SS-01	9-Sep-15	Amphora pediculus	8	17-Feb-16
SS-01	9-Sep-15	Cocconeis pediculus	2	17-Feb-16
SS-01	9-Sep-15	Cocconeis placentula	14	17-Feb-16
SS-01	9-Sep-15	Cyclostephanos invisitatus	3	17-Feb-16
SS-01	9-Sep-15	Cymatopleura solea	2	17-Feb-16
SS-01	9-Sep-15	Diatoma vulgaris	1	17-Feb-16
SS-01	9-Sep-15	Encyonema minutum	5	17-Feb-16
SS-01	9-Sep-15	Encyonema prostratum	2	17-Feb-16
SS-01	9-Sep-15	Encyonema silesiacum	4	17-Feb-16
SS-01	9-Sep-15	Eolimna minima	26	17-Feb-16
SS-01	9-Sep-15	Fragilaria vaucheriae	15	17-Feb-16
SS-01	9-Sep-15	Fragilariforma bicapitata	2	17-Feb-16
SS-01	9-Sep-15	Fragilariforma nitzschioides	1	17-Feb-16
SS-01	9-Sep-15	Geissleria decussis	2	17-Feb-16
SS-01	9-Sep-15	Gomphonema angustatum	1	17-Feb-16
SS-01	9-Sep-15	Gomphonema minutum	9	17-Feb-16
SS-01	9-Sep-15	Gomphonema parvulum	7	17-Feb-16
SS-01	9-Sep-15	Gomphonema parvulum var. exilissimum	8	17-Feb-16
SS-01	9-Sep-15	Hippodonta capitata	2	17-Feb-16
SS-01	9-Sep-15	Mayamaea atomus	2	17-Feb-16
SS-01	9-Sep-15	Melosira varians	139	17-Feb-16
SS-01	9-Sep-15	Meridion circulare	1	17-Feb-16
SS-01	9-Sep-15	Navicula capitatoradiata	3	17-Feb-16
SS-01	9-Sep-15	Navicula caterva	1	17-Feb-16
SS-01	9-Sep-15	Navicula cryptocephala	2	17-Feb-16
SS-01	9-Sep-15	Navicula lanceolata	2	17-Feb-16
SS-01	9-Sep-15	Navicula oligotraphenta	8	17-Feb-16
SS-01	9-Sep-15	Navicula seminulum	2	17-Feb-16
SS-01	9-Sep-15	Navicula trivialis	5	17-Feb-16
SS-01	9-Sep-15	Nitzschia agnita	2	17-Feb-16
SS-01	9-Sep-15	Nitzschia amphibia	1	17-Feb-16
SS-01	9-Sep-15	Nitzschia dissipata	3	17-Feb-16
SS-01	9-Sep-15	Nitzschia fonticola	7	17-Feb-16
SS-01	9-Sep-15	Nitzschia hantzschiana	6	17-Feb-16
SS-01	9-Sep-15	Nitzschia inconspicua	62	17-Feb-16
SS-01	9-Sep-15	Nitzschia linearis	2	17-Feb-16
SS-01	9-Sep-15	Nitzschia palea	4	17-Feb-16
SS-01	9-Sep-15	Nitzschia palea var. tenuirostris	3	17-Feb-16
SS-01	9-Sep-15	Nitzschia pusilla	7	17-Feb-16
SS-01	9-Sep-15	Nitzschia recta	2	17-Feb-16

SS-01	9-Sep-15	Nitzschia sigmoidea	2	17-Feb-16
SS-01	9-Sep-15	Nitzschia supralitorea	4	17-Feb-16
SS-01	9-Sep-15	Nitzschia tubicola	9	17-Feb-16
SS-01	9-Sep-15	Nitzschia vermicularis	3	17-Feb-16
SS-01	9-Sep-15	Planothidium dubium	8	17-Feb-16
SS-01	9-Sep-15	Planothidium frequentissimum	14	17-Feb-16
SS-01	9-Sep-15	Planothidium lanceolatum	15	17-Feb-16
SS-01	9-Sep-15	Psammothidium subatomoides	2	17-Feb-16
SS-01	9-Sep-15	Pseudostarosira parasitica	7	17-Feb-16
SS-01	9-Sep-15	Reimeria sinuata	2	17-Feb-16
SS-01	9-Sep-15	Rhoicosphenia abbreviata	29	17-Feb-16
SS-01	9-Sep-15	Sellaphora pupula	5	17-Feb-16
SS-01	9-Sep-15	Staurosira construens	26	17-Feb-16
SS-01	9-Sep-15	Staurosira construens var. binodis	177	17-Feb-16
SS-01	9-Sep-15	Staurosira construens var. pumila	38	17-Feb-16
SS-01	9-Sep-15	Staurosira construens var. venter	55	17-Feb-16
SS-01	9-Sep-15	Stephanocyclus meneghiniana	19	17-Feb-16
SS-01	9-Sep-15	Stephanodiscus minutulus	1	17-Feb-16
SS-01	9-Sep-15	Surirella angusta	2	17-Feb-16
SS-01	9-Sep-15	Surirella minuta	2	17-Feb-16
SS-05A	9-Sep-15	Adlafia minuscula	2	16-Feb-16
SS-05A	9-Sep-15	Amphora pediculus	1	16-Feb-16
SS-05A	9-Sep-15	Cocconeis pediculus	6	16-Feb-16
SS-05A	9-Sep-15	Cocconeis placentula	17	16-Feb-16
SS-05A	9-Sep-15	Diatoma moniliformis	6	16-Feb-16
SS-05A	9-Sep-15	Diatoma vulgaris	18	16-Feb-16
SS-05A	9-Sep-15	Encyonema minutum	10	16-Feb-16
SS-05A	9-Sep-15	Encyonema prostratum	1	16-Feb-16
SS-05A	9-Sep-15	Encyonema silesiacum	18	16-Feb-16
SS-05A	9-Sep-15	Eolimna minima	14	16-Feb-16
SS-05A	9-Sep-15	Fragilaria capucina	4	16-Feb-16
SS-05A	9-Sep-15	Fragilaria capucina var. gracilis	2	16-Feb-16
SS-05A	9-Sep-15	Fragilaria capucina var. rumpens	1	16-Feb-16
SS-05A	9-Sep-15	Fragilaria vaucheriae	18	16-Feb-16
SS-05A	9-Sep-15	Fragilariforma bicapitata	2	16-Feb-16
SS-05A	9-Sep-15	Fragilariforma nitzschioides	1	16-Feb-16
SS-05A	9-Sep-15	Geissleria acceptata	6	16-Feb-16
SS-05A	9-Sep-15	Geissleria decussis	4	16-Feb-16
SS-05A	9-Sep-15	Gomphonema minutum	16	16-Feb-16
SS-05A	9-Sep-15	Gomphonema parvulum var. exilissimum	3	16-Feb-16
SS-05A	9-Sep-15	Gomphonema pseudotenellum	1	16-Feb-16
SS-05A	9-Sep-15	Hippodonta capitata	1	16-Feb-16
SS-05A	9-Sep-15	Mayamaea atomus	4	16-Feb-16
SS-05A	9-Sep-15	Melosira varians	34	16-Feb-16
SS-05A	9-Sep-15	Navicula aurora	1	16-Feb-16
SS-05A	9-Sep-15	Navicula libonensis	1	16-Feb-16
SS-05A	9-Sep-15	Navicula oligotraphenta	5	16-Feb-16
SS-05A	9-Sep-15	Navicula trivialis	4	16-Feb-16

SS-05A	9-Sep-15	Nitzschia agnita	4	16-Feb-16
SS-05A	9-Sep-15	Nitzschia amphibia	12	16-Feb-16
SS-05A	9-Sep-15	Nitzschia archibaldii	1	16-Feb-16
SS-05A	9-Sep-15	Nitzschia dissipata	44	16-Feb-16
SS-05A	9-Sep-15	Nitzschia fonticola	21	16-Feb-16
SS-05A	9-Sep-15	Nitzschia inconspicua	10	16-Feb-16
SS-05A	9-Sep-15	Nitzschia linearis	3	16-Feb-16
SS-05A	9-Sep-15	Nitzschia palea	1	16-Feb-16
SS-05A	9-Sep-15	Nitzschia palea var. tenuirostris	6	16-Feb-16
SS-05A	9-Sep-15	Nitzschia perminuta	2	16-Feb-16
SS-05A	9-Sep-15	Nitzschia pusilla	9	16-Feb-16
SS-05A	9-Sep-15	Nitzschia supralitorea	1	16-Feb-16
SS-05A	9-Sep-15	Nitzschia tubicola	1	16-Feb-16
SS-05A	9-Sep-15	Planothidium dubium	3	16-Feb-16
SS-05A	9-Sep-15	Planothidium frequentissimum	15	16-Feb-16
SS-05A	9-Sep-15	Planothidium lanceolatum	10	16-Feb-16
SS-05A	9-Sep-15	Pseudostarosira parasitica	1	16-Feb-16
SS-05A	9-Sep-15	Rhoicosphenia abbreviata	39	16-Feb-16
SS-05A	9-Sep-15	Sellaphora pupula	4	16-Feb-16
SS-05A	9-Sep-15	Staurosira construens	17	16-Feb-16
SS-05A	9-Sep-15	Staurosira construens var. binodis	212	16-Feb-16
SS-05A	9-Sep-15	Staurosira construens var. pumila	40	16-Feb-16
SS-05A	9-Sep-15	Staurosira construens var. venter	96	16-Feb-16
SS-05A	9-Sep-15	Staurosirella leptostauron	5	16-Feb-16
SS-05A	9-Sep-15	Staurosirella leptostauron var. dubia	6	16-Feb-16
SS-05A	9-Sep-15	Staurosirella pinnata	3	16-Feb-16
SS-05A	9-Sep-15	Staurosirella rhomboides	4	16-Feb-16
SS-05A	9-Sep-15	Stephanocyclus meneghiniana	11	16-Feb-16
SS-05A	9-Sep-15	Surirella angusta	1	16-Feb-16
SS-05A	9-Sep-15	Surirella minuta	1	16-Feb-16
SS-05A	9-Sep-15	Ulnaria ulna	16	16-Feb-16
SS-06G	9-Sep-15	Achnanthidium minutissimum	7	16-Feb-16
SS-06G	9-Sep-15	Amphora pediculus	3	16-Feb-16
SS-06G	9-Sep-15	Cocconeis pediculus	13	16-Feb-16
SS-06G	9-Sep-15	Cocconeis placentula	30	16-Feb-16
SS-06G	9-Sep-15	Craticula buderi	2	16-Feb-16
SS-06G	9-Sep-15	Diatoma moniliformis	13	16-Feb-16
SS-06G	9-Sep-15	Diatoma vulgaris	31	16-Feb-16
SS-06G	9-Sep-15	Encyonema minutum	13	16-Feb-16
SS-06G	9-Sep-15	Encyonema silesiacum	60	16-Feb-16
SS-06G	9-Sep-15	Eolimna minima	15	16-Feb-16
SS-06G	9-Sep-15	Fragilaria capucina var. gracilis	3	16-Feb-16
SS-06G	9-Sep-15	Fragilaria vaucheriae	15	16-Feb-16
SS-06G	9-Sep-15	Fragilariforma bicapitata	4	16-Feb-16
SS-06G	9-Sep-15	Geissleria acceptata	2	16-Feb-16
SS-06G	9-Sep-15	Geissleria decussis	5	16-Feb-16
SS-06G	9-Sep-15	Gomphonema minutum	2	16-Feb-16
SS-06G	9-Sep-15	Gomphonema parvulum var. exilissimum	3	16-Feb-16

SS-06G	9-Sep-15	Gomphonema truncatum	2	16-Feb-16
SS-06G	9-Sep-15	Halamphora dusenii	2	16-Feb-16
SS-06G	9-Sep-15	Lemnicola hungarica	1	16-Feb-16
SS-06G	9-Sep-15	Mayamaea atomus	2	16-Feb-16
SS-06G	9-Sep-15	Melosira varians	48	16-Feb-16
SS-06G	9-Sep-15	Meridion circulare	2	16-Feb-16
SS-06G	9-Sep-15	Navicula oligotraphenta	3	16-Feb-16
SS-06G	9-Sep-15	Navicula seminulum	1	16-Feb-16
SS-06G	9-Sep-15	Navicula trivialis	3	16-Feb-16
SS-06G	9-Sep-15	Neidiomorpha binodiformis	1	16-Feb-16
SS-06G	9-Sep-15	Nitzschia amphibia	10	16-Feb-16
SS-06G	9-Sep-15	Nitzschia balcanica	1	16-Feb-16
SS-06G	9-Sep-15	Nitzschia communis	1	16-Feb-16
SS-06G	9-Sep-15	Nitzschia dissipata	12	16-Feb-16
SS-06G	9-Sep-15	Nitzschia fonticola	3	16-Feb-16
SS-06G	9-Sep-15	Nitzschia inconspicua	23	16-Feb-16
SS-06G	9-Sep-15	Nitzschia linearis	5	16-Feb-16
SS-06G	9-Sep-15	Nitzschia palea	7	16-Feb-16
SS-06G	9-Sep-15	Nitzschia paleacea	6	16-Feb-16
SS-06G	9-Sep-15	Nitzschia pusilla	4	16-Feb-16
SS-06G	9-Sep-15	Planothidium frequentissimum	11	16-Feb-16
SS-06G	9-Sep-15	Planothidium lanceolatum	6	16-Feb-16
SS-06G	9-Sep-15	Pseudostaurosira brevistriata	2	16-Feb-16
SS-06G	9-Sep-15	Reimeria sinuata	4	16-Feb-16
SS-06G	9-Sep-15	Rhoicosphenia abbreviata	64	16-Feb-16
SS-06G	9-Sep-15	Sellaphora pupula	2	16-Feb-16
SS-06G	9-Sep-15	Staurosira construens	6	16-Feb-16
SS-06G	9-Sep-15	Staurosira construens var. binodis	170	16-Feb-16
SS-06G	9-Sep-15	Staurosira construens var. pumila	48	16-Feb-16
SS-06G	9-Sep-15	Staurosira construens var. venter	74	16-Feb-16
SS-06G	9-Sep-15	Staurosirella leptostauron	15	16-Feb-16
SS-06G	9-Sep-15	Staurosirella leptostauron var. dubia	2	16-Feb-16
SS-06G	9-Sep-15	Staurosirella pinnata	4	16-Feb-16
SS-06G	9-Sep-15	Staurosirella rhomboides	2	16-Feb-16
SS-06G	9-Sep-15	Stephanocyclus meneghiniana	6	16-Feb-16
SS-06G	9-Sep-15	Stephanodiscus minutulus	2	16-Feb-16
SS-06G	9-Sep-15	Surirella angusta	2	16-Feb-16
SS-06G	9-Sep-15	Surirella minuta	2	16-Feb-16
SS-06G	9-Sep-15	Ulnaria oxyrhynchus	1	16-Feb-16
SS-06G	9-Sep-15	Ulnaria ulna	19	16-Feb-16
SS-07	9-Sep-15	Adlafia minuscula	2	15-Feb-16
SS-07	9-Sep-15	Amphora pediculus	2	15-Feb-16
SS-07	9-Sep-15	Centophora puchella	1	15-Feb-16
SS-07	9-Sep-15	Cocconeis pediculus	13	15-Feb-16
SS-07	9-Sep-15	Cocconeis placentula	30	15-Feb-16
SS-07	9-Sep-15	Craticula buderi	6	15-Feb-16
SS-07	9-Sep-15	Diatoma moniliformis	1	15-Feb-16
SS-07	9-Sep-15	Diatoma vulgaris	3	15-Feb-16

SS-07	9-Sep-15	Encyonema minutum	18	15-Feb-16
SS-07	9-Sep-15	Encyonema silesiacum	23	15-Feb-16
SS-07	9-Sep-15	Eolimna minima	70	15-Feb-16
SS-07	9-Sep-15	Eolimna subminuscula	6	15-Feb-16
SS-07	9-Sep-15	Fragilaria capucina	3	15-Feb-16
SS-07	9-Sep-15	Fragilaria capucina var. gracilis	3	15-Feb-16
SS-07	9-Sep-15	Fragilaria vaucheriae	2	15-Feb-16
SS-07	9-Sep-15	Fragilariforma bicapitata	2	15-Feb-16
SS-07	9-Sep-15	Geissleria acceptata	2	15-Feb-16
SS-07	9-Sep-15	Geissleria decussis	4	15-Feb-16
SS-07	9-Sep-15	Gomphonema minutum	1	15-Feb-16
SS-07	9-Sep-15	Gomphonema parvulum	18	15-Feb-16
SS-07	9-Sep-15	Gomphonema parvulum var. exilissimum	12	15-Feb-16
SS-07	9-Sep-15	Gomphonema subclavatum	1	15-Feb-16
SS-07	9-Sep-15	Lemnicola hungarica	1	15-Feb-16
SS-07	9-Sep-15	Mayamaea atomus	94	15-Feb-16
SS-07	9-Sep-15	Melosira varians	24	15-Feb-16
SS-07	9-Sep-15	Navicula libonensis	1	15-Feb-16
SS-07	9-Sep-15	Navicula seminulum	25	15-Feb-16
SS-07	9-Sep-15	Navicula trivialis	5	15-Feb-16
SS-07	9-Sep-15	Navicula veneta	1	15-Feb-16
SS-07	9-Sep-15	Nitzschia amphibia	1	15-Feb-16
SS-07	9-Sep-15	Nitzschia dissipata	7	15-Feb-16
SS-07	9-Sep-15	Nitzschia fonticola	5	15-Feb-16
SS-07	9-Sep-15	Nitzschia inconspicua	20	15-Feb-16
SS-07	9-Sep-15	Nitzschia linearis	3	15-Feb-16
SS-07	9-Sep-15	Nitzschia palea	21	15-Feb-16
SS-07	9-Sep-15	Nitzschia paleacea	4	15-Feb-16
SS-07	9-Sep-15	Nitzschia pusilla	3	15-Feb-16
SS-07	9-Sep-15	Nitzschia tubicola	2	15-Feb-16
SS-07	9-Sep-15	Pinnularia microstauron	2	15-Feb-16
SS-07	9-Sep-15	Planothidium dubium	3	15-Feb-16
SS-07	9-Sep-15	Planothidium frequentissimum	21	15-Feb-16
SS-07	9-Sep-15	Planothidium lanceolatum	8	15-Feb-16
SS-07	9-Sep-15	Pseudostarosira parasitica	6	15-Feb-16
SS-07	9-Sep-15	Pseudostaurosira brevistriata	1	15-Feb-16
SS-07	9-Sep-15	Reimeria sinuata	3	15-Feb-16
SS-07	9-Sep-15	Rhoicosphenia abbreviata	38	15-Feb-16
SS-07	9-Sep-15	Sellaphora pupula	3	15-Feb-16
SS-07	9-Sep-15	Staurosira construens var. binodis	147	15-Feb-16
SS-07	9-Sep-15	Staurosira construens var. pumila	42	15-Feb-16
SS-07	9-Sep-15	Staurosira construens var. venter	53	15-Feb-16
SS-07	9-Sep-15	Staurosirella leptostauron	11	15-Feb-16
SS-07	9-Sep-15	Staurosirella leptostauron var. dubia	1	15-Feb-16
SS-07	9-Sep-15	Staurosirella pinnata	3	15-Feb-16
SS-07	9-Sep-15	Stephanocyclus meneghiniana	9	15-Feb-16
SS-07	9-Sep-15	Surirella angusta	3	15-Feb-16
SS-07	9-Sep-15	Ulnaria ulna	6	15-Feb-16

SS-08	9-Sep-15	Cocconeis placentula	3	15-Feb-16
SS-08	9-Sep-15	Cymatopleura solea	1	15-Feb-16
SS-08	9-Sep-15	Encyonema minutum	5	15-Feb-16
SS-08	9-Sep-15	Eolimna minima	258	15-Feb-16
SS-08	9-Sep-15	Eolimna subminuscula	6	15-Feb-16
SS-08	9-Sep-15	Gomphonema parvulum	4	15-Feb-16
SS-08	9-Sep-15	Gomphonema parvulum var. exilissimum	25	15-Feb-16
SS-08	9-Sep-15	Mayamaea atomus	50	15-Feb-16
SS-08	9-Sep-15	Navicula gregaria	2	15-Feb-16
SS-08	9-Sep-15	Navicula oligotraphenta	2	15-Feb-16
SS-08	9-Sep-15	Navicula seminulum	155	15-Feb-16
SS-08	9-Sep-15	Navicula veneta	1	15-Feb-16
SS-08	9-Sep-15	Nitzschia amphibia	151	15-Feb-16
SS-08	9-Sep-15	Nitzschia archibaldii	2	15-Feb-16
SS-08	9-Sep-15	Nitzschia fonticola	16	15-Feb-16
SS-08	9-Sep-15	Nitzschia inconspicua	45	15-Feb-16
SS-08	9-Sep-15	Nitzschia palea	2	15-Feb-16
SS-08	9-Sep-15	Planothidium frequentissimum	28	15-Feb-16
SS-08	9-Sep-15	Planothidium lanceolatum	14	15-Feb-16
SS-08	9-Sep-15	Rhoicosphenia abbreviata	9	15-Feb-16
SS-08	9-Sep-15	Sellaphora pupula	1	15-Feb-16
SS-08	9-Sep-15	Staurosira construens var. venter	4	15-Feb-16
SS-08	9-Sep-15	Stephanocyclus meneghiniana	1	15-Feb-16
SS-08	9-Sep-15	Ulnaria ulna	15	15-Feb-16
SS-10A	9-Sep-15	Amphora pediculus	2	12-Feb-16
SS-10A	9-Sep-15	Cocconeis pediculus	1	12-Feb-16
SS-10A	9-Sep-15	Cocconeis placentula	60	12-Feb-16
SS-10A	9-Sep-15	Encyonema minutum	19	12-Feb-16
SS-10A	9-Sep-15	Encyonema silesiacum	17	12-Feb-16
SS-10A	9-Sep-15	Encyonema ventricosum	14	12-Feb-16
SS-10A	9-Sep-15	Eolimna minima	76	12-Feb-16
SS-10A	9-Sep-15	Fragilaria vaucheriae	35	12-Feb-16
SS-10A	9-Sep-15	Geissleria acceptata	1	12-Feb-16
SS-10A	9-Sep-15	Gomphonema parvulum	2	12-Feb-16
SS-10A	9-Sep-15	Gomphonema parvulum var. exilissimum	16	12-Feb-16
SS-10A	9-Sep-15	Halamphora veneta	2	12-Feb-16
SS-10A	9-Sep-15	Mayamaea atomus	18	12-Feb-16
SS-10A	9-Sep-15	Navicula caterva	1	12-Feb-16
SS-10A	9-Sep-15	Navicula cryptocephala	5	12-Feb-16
SS-10A	9-Sep-15	Navicula lanceolata	2	12-Feb-16
SS-10A	9-Sep-15	Nitzschia amphibia	140	12-Feb-16
SS-10A	9-Sep-15	Nitzschia gracilis	2	12-Feb-16
SS-10A	9-Sep-15	Nitzschia inconspicua	108	12-Feb-16
SS-10A	9-Sep-15	Nitzschia palea	2	12-Feb-16
SS-10A	9-Sep-15	Nitzschia paleacea	5	12-Feb-16
SS-10A	9-Sep-15	Nitzschia pusilla	6	12-Feb-16
SS-10A	9-Sep-15	Planothidium dubium	2	12-Feb-16
SS-10A	9-Sep-15	Planothidium frequentissimum	14	12-Feb-16

SS-10A	9-Sep-15	Planothidium lanceolatum	36	12-Feb-16
SS-10A	9-Sep-15	Pseudostarosira parasitica	10	12-Feb-16
SS-10A	9-Sep-15	Pseudostaurosira brevistriata	2	12-Feb-16
SS-10A	9-Sep-15	Reimeria sinuata	3	12-Feb-16
SS-10A	9-Sep-15	Rhoicosphenia abbreviata	82	12-Feb-16
SS-10A	9-Sep-15	Staurosira construens var. binodis	2	12-Feb-16
SS-10A	9-Sep-15	Staurosira construens var. pumila	25	12-Feb-16
SS-10A	9-Sep-15	Staurosira construens var. venter	47	12-Feb-16
SS-10A	9-Sep-15	Staurosirella leptostauron	9	12-Feb-16
SS-10A	9-Sep-15	Staurosirella rhomboides	1	12-Feb-16
SS-10A	9-Sep-15	Stephanocyclus meneghiniana	12	12-Feb-16
SS-10A	9-Sep-15	Surirella angusta	1	12-Feb-16
SS-10A	9-Sep-15	Ulnaria ulna	20	12-Feb-16
SS-10B	9-Sep-15	Cocconeis placentula	13	12-Feb-16
SS-10B	9-Sep-15	Encyonema minutum	17	12-Feb-16
SS-10B	9-Sep-15	Encyonema ventricosum	7	12-Feb-16
SS-10B	9-Sep-15	Eolimna minima	77	12-Feb-16
SS-10B	9-Sep-15	Fragilaria capucina var. gracilis	6	12-Feb-16
SS-10B	9-Sep-15	Fragilaria vaucheriae	15	12-Feb-16
SS-10B	9-Sep-15	Gomphonema parvulum	3	12-Feb-16
SS-10B	9-Sep-15	Gomphonema parvulum var. exilissimum	11	12-Feb-16
SS-10B	9-Sep-15	Halamphora veneta	1	12-Feb-16
SS-10B	9-Sep-15	Mayamaea atomus	46	12-Feb-16
SS-10B	9-Sep-15	Melosira varians	1	12-Feb-16
SS-10B	9-Sep-15	Navicula cryptotenella	2	12-Feb-16
SS-10B	9-Sep-15	Navicula lanceolata	2	12-Feb-16
SS-10B	9-Sep-15	Navicula veneta	1	12-Feb-16
SS-10B	9-Sep-15	Nitzschia amphibia	236	12-Feb-16
SS-10B	9-Sep-15	Nitzschia fonticola	3	12-Feb-16
SS-10B	9-Sep-15	Nitzschia inconspicua	194	12-Feb-16
SS-10B	9-Sep-15	Nitzschia paleacea	1	12-Feb-16
SS-10B	9-Sep-15	Nitzschia pusilla	2	12-Feb-16
SS-10B	9-Sep-15	Nitzschia tubicola	4	12-Feb-16
SS-10B	9-Sep-15	Planothidium dubium	4	12-Feb-16
SS-10B	9-Sep-15	Planothidium frequentissimum	5	12-Feb-16
SS-10B	9-Sep-15	Planothidium lanceolatum	17	12-Feb-16
SS-10B	9-Sep-15	Pseudostaurosira brevistriata	25	12-Feb-16
SS-10B	9-Sep-15	Rhoicosphenia abbreviata	33	12-Feb-16
SS-10B	9-Sep-15	Staurosira construens	1	12-Feb-16
SS-10B	9-Sep-15	Staurosira construens var. binodis	6	12-Feb-16
SS-10B	9-Sep-15	Staurosira construens var. pumila	30	12-Feb-16
SS-10B	9-Sep-15	Staurosira construens var. venter	12	12-Feb-16
SS-10B	9-Sep-15	Staurosirella leptostauron	3	12-Feb-16
SS-10B	9-Sep-15	Stephanocyclus meneghiniana	6	12-Feb-16
SS-10B	9-Sep-15	Ulnaria ulna	16	12-Feb-16
SS-11C	9-Sep-15	Adlafia minuscula	2	11-Feb-16
SS-11C	9-Sep-15	Cocconeis placentula	7	11-Feb-16
SS-11C	9-Sep-15	Encyonema minutum	9	11-Feb-16

SS-11C	9-Sep-15	Encyonema silesiacum	7	11-Feb-16
SS-11C	9-Sep-15	Encyonema ventricosum	18	11-Feb-16
SS-11C	9-Sep-15	Eolimna minima	16	11-Feb-16
SS-11C	9-Sep-15	Fragilaria vaucheriae	79	11-Feb-16
SS-11C	9-Sep-15	Gomphonema parvulum	4	11-Feb-16
SS-11C	9-Sep-15	Gomphonema parvulum var. exilissimum	20	11-Feb-16
SS-11C	9-Sep-15	Gomphonema truncatum	2	11-Feb-16
SS-11C	9-Sep-15	Halamphora veneta	11	11-Feb-16
SS-11C	9-Sep-15	Mayamaea atomus	46	11-Feb-16
SS-11C	9-Sep-15	Melosira varians	1	11-Feb-16
SS-11C	9-Sep-15	Navicula trivialis	1	11-Feb-16
SS-11C	9-Sep-15	Nitzschia amphibia	303	11-Feb-16
SS-11C	9-Sep-15	Nitzschia fonticola	34	11-Feb-16
SS-11C	9-Sep-15	Nitzschia inconspicua	26	11-Feb-16
SS-11C	9-Sep-15	Nitzschia palea var. tenuirostris	2	11-Feb-16
SS-11C	9-Sep-15	Nitzschia paleacea	63	11-Feb-16
SS-11C	9-Sep-15	Nitzschia perminuta	1	11-Feb-16
SS-11C	9-Sep-15	Planothidium frequentissimum	8	11-Feb-16
SS-11C	9-Sep-15	Planothidium lanceolatum	4	11-Feb-16
SS-11C	9-Sep-15	Rhoicosphenia abbreviata	4	11-Feb-16
SS-11C	9-Sep-15	Staurosira construens var. binodus	13	11-Feb-16
SS-11C	9-Sep-15	Staurosira construens var. pumila	16	11-Feb-16
SS-11C	9-Sep-15	Staurosira construens var. venter	26	11-Feb-16
SS-11C	9-Sep-15	Staurosirella leptostauron	4	11-Feb-16
SS-11C	9-Sep-15	Staurosirella leptostauron var. dubia	1	11-Feb-16
SS-11C	9-Sep-15	Staurosirella pinnata	2	11-Feb-16
SS-11C	9-Sep-15	Stephanocyclus meneghiniana	6	11-Feb-16
SS-11C	9-Sep-15	Ulnaria oxyrhynchus	1	11-Feb-16
SS-11C	9-Sep-15	Ulnaria ulna	63	11-Feb-16
SS-11D	9-Sep-15	Adlafia minuscula	2	10-Feb-16
SS-11D	9-Sep-15	Cocconeis placentula	7	10-Feb-16
SS-11D	9-Sep-15	Encyonema minutum	2	10-Feb-16
SS-11D	9-Sep-15	Encyonema silesiacum	12	10-Feb-16
SS-11D	9-Sep-15	Encyonema ventricosum	15	10-Feb-16
SS-11D	9-Sep-15	Eolimna minima	30	10-Feb-16
SS-11D	9-Sep-15	Fragilaria vaucheriae	89	10-Feb-16
SS-11D	9-Sep-15	Gomphonema parvulum	3	10-Feb-16
SS-11D	9-Sep-15	Gomphonema parvulum var. exilissimum	14	10-Feb-16
SS-11D	9-Sep-15	Gomphonema truncatum	4	10-Feb-16
SS-11D	9-Sep-15	Halamphora veneta	13	10-Feb-16
SS-11D	9-Sep-15	Mayamaea atomus	88	10-Feb-16
SS-11D	9-Sep-15	Melosira varians	4	10-Feb-16
SS-11D	9-Sep-15	Navicula gregaria	2	10-Feb-16
SS-11D	9-Sep-15	Navicula lanceolata	1	10-Feb-16
SS-11D	9-Sep-15	Nitzschia amphibia	231	10-Feb-16
SS-11D	9-Sep-15	Nitzschia fonticola	13	10-Feb-16
SS-11D	9-Sep-15	Nitzschia inconspicua	68	10-Feb-16
SS-11D	9-Sep-15	Nitzschia linearis	1	10-Feb-16

SS-11D	9-Sep-15	Nitzschia palea	6	10-Feb-16
SS-11D	9-Sep-15	Nitzschia paleacea	25	10-Feb-16
SS-11D	9-Sep-15	Nitzschia perminuta	7	10-Feb-16
SS-11D	9-Sep-15	Placoneis elginensis var. cuneata	2	10-Feb-16
SS-11D	9-Sep-15	Planothidium frequentissimum	11	10-Feb-16
SS-11D	9-Sep-15	Planothidium lanceolatum	3	10-Feb-16
SS-11D	9-Sep-15	Reimeria sinuata	1	10-Feb-16
SS-11D	9-Sep-15	Rhoicosphenia abbreviata	6	10-Feb-16
SS-11D	9-Sep-15	Staurosira construens var. binodus	19	10-Feb-16
SS-11D	9-Sep-15	Staurosira construens var. pumila	12	10-Feb-16
SS-11D	9-Sep-15	Staurosira construens var. venter	22	10-Feb-16
SS-11D	9-Sep-15	Staurosirella leptostauron	4	10-Feb-16
SS-11D	9-Sep-15	Stephanocyclus meneghiniana	18	10-Feb-16
SS-11D	9-Sep-15	Stephanodiscus hantzschii	4	10-Feb-16
SS-11D	9-Sep-15	Ulnaria oxyrhynchus	5	10-Feb-16
SS-11D	9-Sep-15	Ulnaria ulna	56	10-Feb-16
SS-13	8-Sep-15	Cocconeis placentula	17	10-Feb-16
SS-13	8-Sep-15	Encyonema silesiacum	13	10-Feb-16
SS-13	8-Sep-15	Encyonema ventricosum	15	10-Feb-16
SS-13	8-Sep-15	Eolimna minima	43	10-Feb-16
SS-13	8-Sep-15	Epithemia turgida	2	10-Feb-16
SS-13	8-Sep-15	Fragilaria vaucheriae	120	10-Feb-16
SS-13	8-Sep-15	Gomphonema parvulum	4	10-Feb-16
SS-13	8-Sep-15	Gomphonema parvulum var. exilissimum	10	10-Feb-16
SS-13	8-Sep-15	Halamphora veneta	11	10-Feb-16
SS-13	8-Sep-15	Mayamaea atomus	16	10-Feb-16
SS-13	8-Sep-15	Melosira varians	11	10-Feb-16
SS-13	8-Sep-15	Navicula lanceolata	2	10-Feb-16
SS-13	8-Sep-15	Nitzschia amphibia	148	10-Feb-16
SS-13	8-Sep-15	Nitzschia dissipata	4	10-Feb-16
SS-13	8-Sep-15	Nitzschia fonticola	7	10-Feb-16
SS-13	8-Sep-15	Nitzschia inconspicua	48	10-Feb-16
SS-13	8-Sep-15	Nitzschia linearis	2	10-Feb-16
SS-13	8-Sep-15	Nitzschia palea	5	10-Feb-16
SS-13	8-Sep-15	Nitzschia palea var. tenuirostris	4	10-Feb-16
SS-13	8-Sep-15	Nitzschia paleacea	52	10-Feb-16
SS-13	8-Sep-15	Nitzschia pusilla	1	10-Feb-16
SS-13	8-Sep-15	Planothidium frequentissimum	6	10-Feb-16
SS-13	8-Sep-15	Planothidium lanceolatum	6	10-Feb-16
SS-13	8-Sep-15	Psammothidium subatomoides	2	10-Feb-16
SS-13	8-Sep-15	Pseudostarosira parasitica	1	10-Feb-16
SS-13	8-Sep-15	Reimeria sinuata	8	10-Feb-16
SS-13	8-Sep-15	Rhoicosphenia abbreviata	17	10-Feb-16
SS-13	8-Sep-15	Staurosira construens	4	10-Feb-16
SS-13	8-Sep-15	Staurosira construens var. binodus	37	10-Feb-16
SS-13	8-Sep-15	Staurosira construens var. pumila	42	10-Feb-16
SS-13	8-Sep-15	Staurosira construens var. venter	22	10-Feb-16
SS-13	8-Sep-15	Staurosirella leptostauron	10	10-Feb-16

SS-13	8-Sep-15	Stephanocyclus meneghiniana	14	10-Feb-16
SS-13	8-Sep-15	Tryblionella hungarica	1	10-Feb-16
SS-13	8-Sep-15	Ulnaria oxyrhynchus	4	10-Feb-16
SS-13	8-Sep-15	Ulnaria ulna	91	10-Feb-16
SS-14	8-Sep-15	Adlafia minuscula	4	10-Feb-16
SS-14	8-Sep-15	Amphora copulata	2	10-Feb-16
SS-14	8-Sep-15	Cocconeis placentula	28	10-Feb-16
SS-14	8-Sep-15	Diatoma moniliformis	2	10-Feb-16
SS-14	8-Sep-15	Diatoma vulgaris	2	10-Feb-16
SS-14	8-Sep-15	Encyonema minutum	10	10-Feb-16
SS-14	8-Sep-15	Encyonema silesiacum	43	10-Feb-16
SS-14	8-Sep-15	Encyonema ventricosum	17	10-Feb-16
SS-14	8-Sep-15	Eolimna minima	86	10-Feb-16
SS-14	8-Sep-15	Fragilaria capucina var. rumpens	6	10-Feb-16
SS-14	8-Sep-15	Fragilaria vaucheriae	84	10-Feb-16
SS-14	8-Sep-15	Geissleria acceptata	2	10-Feb-16
SS-14	8-Sep-15	Gomphoneis minuta	2	10-Feb-16
SS-14	8-Sep-15	Gomphonema parvulum	1	10-Feb-16
SS-14	8-Sep-15	Halamphora veneta	1	10-Feb-16
SS-14	8-Sep-15	Mayamaea atomus	6	10-Feb-16
SS-14	8-Sep-15	Melosira varians	11	10-Feb-16
SS-14	8-Sep-15	Navicula capitatoradiata	1	10-Feb-16
SS-14	8-Sep-15	Navicula cryptocephala	2	10-Feb-16
SS-14	8-Sep-15	Navicula lanceolata	1	10-Feb-16
SS-14	8-Sep-15	Navicula oligotraphenta	1	10-Feb-16
SS-14	8-Sep-15	Nitzschia amphibia	58	10-Feb-16
SS-14	8-Sep-15	Nitzschia archibaldii	5	10-Feb-16
SS-14	8-Sep-15	Nitzschia communis	2	10-Feb-16
SS-14	8-Sep-15	Nitzschia dissipata	4	10-Feb-16
SS-14	8-Sep-15	Nitzschia fonticola	3	10-Feb-16
SS-14	8-Sep-15	Nitzschia gracilis	1	10-Feb-16
SS-14	8-Sep-15	Nitzschia inconspicua	20	10-Feb-16
SS-14	8-Sep-15	Nitzschia linearis	3	10-Feb-16
SS-14	8-Sep-15	Nitzschia paleacea	11	10-Feb-16
SS-14	8-Sep-15	Nitzschia pusilla	6	10-Feb-16
SS-14	8-Sep-15	Nitzschia supralitorea	3	10-Feb-16
SS-14	8-Sep-15	Planothidium dubium	3	10-Feb-16
SS-14	8-Sep-15	Planothidium frequentissimum	20	10-Feb-16
SS-14	8-Sep-15	Planothidium lanceolatum	20	10-Feb-16
SS-14	8-Sep-15	Pseudostarosira parasitica	18	10-Feb-16
SS-14	8-Sep-15	Pseudostaurosira brevistriata	2	10-Feb-16
SS-14	8-Sep-15	Reimeria sinuata	2	10-Feb-16
SS-14	8-Sep-15	Rhoicosphenia abbreviata	13	10-Feb-16
SS-14	8-Sep-15	Sellaphora pupula	2	10-Feb-16
SS-14	8-Sep-15	Stauroneis smithii	1	10-Feb-16
SS-14	8-Sep-15	Staurosira construens var. binodus	49	10-Feb-16
SS-14	8-Sep-15	Staurosira construens var. pumila	34	10-Feb-16
SS-14	8-Sep-15	Staurosira construens var. venter	74	10-Feb-16

SS-14	8-Sep-15	Staurosirella leptostauron	10	10-Feb-16
SS-14	8-Sep-15	Staurosirella leptostauron var. dubia	1	10-Feb-16
SS-14	8-Sep-15	Staurosirella pinnata	2	10-Feb-16
SS-14	8-Sep-15	Stephanocyclus meneghiniana	42	10-Feb-16
SS-14	8-Sep-15	Surirella minuta	2	10-Feb-16
SS-14	8-Sep-15	Ulnaria oxyrhynchus	6	10-Feb-16
SS-14	8-Sep-15	Ulnaria ulna	71	10-Feb-16
SS-15G	8-Sep-15	Achnanthidium minutissimum	59	9-Feb-16
SS-15G	8-Sep-15	Adlafia bryophila	2	9-Feb-16
SS-15G	8-Sep-15	Adlafia minuscula	6	9-Feb-16
SS-15G	8-Sep-15	Amphora pediculus	10	9-Feb-16
SS-15G	8-Sep-15	Cocconeis pediculus	17	9-Feb-16
SS-15G	8-Sep-15	Cocconeis placentula	207	9-Feb-16
SS-15G	8-Sep-15	Cymbella janischii	2	9-Feb-16
SS-15G	8-Sep-15	Diatoma moniliformis	43	9-Feb-16
SS-15G	8-Sep-15	Encyonema minutum	1	9-Feb-16
SS-15G	8-Sep-15	Encyonema reichardtii	2	9-Feb-16
SS-15G	8-Sep-15	Encyonema silesiacum	37	9-Feb-16
SS-15G	8-Sep-15	Eolimna minima	4	9-Feb-16
SS-15G	8-Sep-15	Fragilaria capucina var. gracilis	2	9-Feb-16
SS-15G	8-Sep-15	Fragilaria vaucheriae	19	9-Feb-16
SS-15G	8-Sep-15	Gomphonema micropus	3	9-Feb-16
SS-15G	8-Sep-15	Gomphonema subclavatum	5	9-Feb-16
SS-15G	8-Sep-15	Hippodonta lueneburgensis	1	9-Feb-16
SS-15G	8-Sep-15	Mayamaea atomus	4	9-Feb-16
SS-15G	8-Sep-15	Meridion circulare	1	9-Feb-16
SS-15G	8-Sep-15	Navicula antonii	10	9-Feb-16
SS-15G	8-Sep-15	Navicula capitatoradiata	5	9-Feb-16
SS-15G	8-Sep-15	Navicula caterva	11	9-Feb-16
SS-15G	8-Sep-15	Navicula cryptocephala	2	9-Feb-16
SS-15G	8-Sep-15	Navicula cryptotenella	31	9-Feb-16
SS-15G	8-Sep-15	Navicula cryptotenelloides	7	9-Feb-16
SS-15G	8-Sep-15	Navicula reichardtiana	38	9-Feb-16
SS-15G	8-Sep-15	Navicula tripunctata	45	9-Feb-16
SS-15G	8-Sep-15	Navicula viridulacalcis	1	9-Feb-16
SS-15G	8-Sep-15	Nitzschia acicularis	1	9-Feb-16
SS-15G	8-Sep-15	Nitzschia archibaldii	62	9-Feb-16
SS-15G	8-Sep-15	Nitzschia dissipata	37	9-Feb-16
SS-15G	8-Sep-15	Nitzschia fonticola	2	9-Feb-16
SS-15G	8-Sep-15	Nitzschia inconspicua	8	9-Feb-16
SS-15G	8-Sep-15	Nitzschia linearis	2	9-Feb-16
SS-15G	8-Sep-15	Nitzschia paleacea	16	9-Feb-16
SS-15G	8-Sep-15	Planothidium dubium	19	9-Feb-16
SS-15G	8-Sep-15	Planothidium frequentissimum	27	9-Feb-16
SS-15G	8-Sep-15	Planothidium lanceolatum	14	9-Feb-16
SS-15G	8-Sep-15	Reimeria sinuata	10	9-Feb-16
SS-15G	8-Sep-15	Rhoicosphenia abbreviata	19	9-Feb-16
SS-15G	8-Sep-15	Sellaphora laevissima	1	9-Feb-16

SS-15G	8-Sep-15	Staurosira construens var. pumila	3	9-Feb-16
SS-15G	8-Sep-15	Staurosira construens var. venter	1	9-Feb-16
SS-15G	8-Sep-15	Surirella angusta	1	9-Feb-16
SS-15G	8-Sep-15	Surirella minuta	2	9-Feb-16
SS-15A	8-Sep-15	Cocconeis placentula	9	9-Feb-16
SS-15A	8-Sep-15	Diatoma vulgaris	4	9-Feb-16
SS-15A	8-Sep-15	Encyonema minutum	1	9-Feb-16
SS-15A	8-Sep-15	Encyonema silesiacum	29	9-Feb-16
SS-15A	8-Sep-15	Encyonema ventricosum	7	9-Feb-16
SS-15A	8-Sep-15	Eolimna minima	37	9-Feb-16
SS-15A	8-Sep-15	Fragilaria capucina	8	9-Feb-16
SS-15A	8-Sep-15	Fragilaria vaucheriae	41	9-Feb-16
SS-15A	8-Sep-15	Gomphonema parvulum	11	9-Feb-16
SS-15A	8-Sep-15	Gomphonema parvulum var. exilissimum	22	9-Feb-16
SS-15A	8-Sep-15	Halamphora veneta	57	9-Feb-16
SS-15A	8-Sep-15	Hippodonta capitata	1	9-Feb-16
SS-15A	8-Sep-15	Mayamaea atomus	38	9-Feb-16
SS-15A	8-Sep-15	Melosira varians	2	9-Feb-16
SS-15A	8-Sep-15	Navicula lanceolata	2	9-Feb-16
SS-15A	8-Sep-15	Navicula veneta	2	9-Feb-16
SS-15A	8-Sep-15	Nitzschia amphibia	232	9-Feb-16
SS-15A	8-Sep-15	Nitzschia fonticola	21	9-Feb-16
SS-15A	8-Sep-15	Nitzschia inconspicua	37	9-Feb-16
SS-15A	8-Sep-15	Nitzschia palea	3	9-Feb-16
SS-15A	8-Sep-15	Nitzschia paleacea	69	9-Feb-16
SS-15A	8-Sep-15	Planothidium frequentissimum	11	9-Feb-16
SS-15A	8-Sep-15	Planothidium lanceolatum	5	9-Feb-16
SS-15A	8-Sep-15	Pseudostaurosira brevistriata	15	9-Feb-16
SS-15A	8-Sep-15	Rhoicosphenia abbreviata	45	9-Feb-16
SS-15A	8-Sep-15	Staurosira construens var. binodus	15	9-Feb-16
SS-15A	8-Sep-15	Staurosira construens var. pumila	25	9-Feb-16
SS-15A	8-Sep-15	Staurosira construens var. venter	4	9-Feb-16
SS-15A	8-Sep-15	Staurosirella leptostauron	4	9-Feb-16
SS-15A	8-Sep-15	Stephanocyclus meneghiniana	20	9-Feb-16
SS-15A	8-Sep-15	Surirella minuta	2	9-Feb-16
SS-15A	8-Sep-15	Ulnaria oxyrhynchus	9	9-Feb-16
SS-15A	8-Sep-15	Ulnaria ulna	12	9-Feb-16
SS-15B	8-Sep-15	Adlafia suchlandtii	1	8-Feb-16
SS-15B	8-Sep-15	Amphora pediculus	3	8-Feb-16
SS-15B	8-Sep-15	Cocconeis placentula	14	8-Feb-16
SS-15B	8-Sep-15	Diatoma vulgaris	5	8-Feb-16
SS-15B	8-Sep-15	Encyonema minutum	4	8-Feb-16
SS-15B	8-Sep-15	Encyonema silesiacum	18	8-Feb-16
SS-15B	8-Sep-15	Eolimna minima	12	8-Feb-16
SS-15B	8-Sep-15	Fragilaria vaucheriae	24	8-Feb-16
SS-15B	8-Sep-15	Gomphonema angustatum	2	8-Feb-16
SS-15B	8-Sep-15	Gomphonema parvulum	5	8-Feb-16
SS-15B	8-Sep-15	Gomphonema parvulum var. exilissimum	30	8-Feb-16

SS-15B	8-Sep-15	Halamphora veneta	74	8-Feb-16
SS-15B	8-Sep-15	Mayamaea atomus	191	8-Feb-16
SS-15B	8-Sep-15	Melosira varians	5	8-Feb-16
SS-15B	8-Sep-15	Navicula oligotraphenta	1	8-Feb-16
SS-15B	8-Sep-15	Navicula veneta	3	8-Feb-16
SS-15B	8-Sep-15	Nitzschia amphibia	165	8-Feb-16
SS-15B	8-Sep-15	Nitzschia archibaldii	6	8-Feb-16
SS-15B	8-Sep-15	Nitzschia fonticola	31	8-Feb-16
SS-15B	8-Sep-15	Nitzschia hantzschiana	1	8-Feb-16
SS-15B	8-Sep-15	Nitzschia inconspicua	15	8-Feb-16
SS-15B	8-Sep-15	Nitzschia palea	15	8-Feb-16
SS-15B	8-Sep-15	Nitzschia palea var. tenuirostris	1	8-Feb-16
SS-15B	8-Sep-15	Nitzschia paleacea	74	8-Feb-16
SS-15B	8-Sep-15	Nitzschia supralitorea	2	8-Feb-16
SS-15B	8-Sep-15	Planothidium frequentissimum	7	8-Feb-16
SS-15B	8-Sep-15	Pseudostaurosira brevistriata	37	8-Feb-16
SS-15B	8-Sep-15	Reimeria sinuata	4	8-Feb-16
SS-15B	8-Sep-15	Rhoicosphenia abbreviata	5	8-Feb-16
SS-15B	8-Sep-15	Sellaphora pupula	1	8-Feb-16
SS-15B	8-Sep-15	Staurosira construens var. binodus	4	8-Feb-16
SS-15B	8-Sep-15	Staurosira construens var. venter	9	8-Feb-16
SS-15B	8-Sep-15	Staurosirella leptostauron	7	8-Feb-16
SS-15B	8-Sep-15	Stephanocyclus meneghiniana	13	8-Feb-16
SS-15B	8-Sep-15	Ulnaria oxyrhynchus	6	8-Feb-16
SS-15B	8-Sep-15	Ulnaria ulna	5	8-Feb-16
SS-16B	8-Sep-15	Cocconeis placentula	3	8-Feb-16
SS-16B	8-Sep-15	Encyonema minutum	2	8-Feb-16
SS-16B	8-Sep-15	Encyonema silesiacum	4	8-Feb-16
SS-16B	8-Sep-15	Eolimna minima	4	8-Feb-16
SS-16B	8-Sep-15	Eolimna subminuscula	2	8-Feb-16
SS-16B	8-Sep-15	Fragilaria vaucheriae	8	8-Feb-16
SS-16B	8-Sep-15	Gomphonema angustatum	2	8-Feb-16
SS-16B	8-Sep-15	Gomphonema parvulum	13	8-Feb-16
SS-16B	8-Sep-15	Gomphonema parvulum var. exilissimum	11	8-Feb-16
SS-16B	8-Sep-15	Halamphora veneta	45	8-Feb-16
SS-16B	8-Sep-15	Mayamaea atomus	108	8-Feb-16
SS-16B	8-Sep-15	Nitzschia amphibia	63	8-Feb-16
SS-16B	8-Sep-15	Nitzschia archibaldii	13	8-Feb-16
SS-16B	8-Sep-15	Nitzschia fonticola	139	8-Feb-16
SS-16B	8-Sep-15	Nitzschia hantzschiana	6	8-Feb-16
SS-16B	8-Sep-15	Nitzschia inconspicua	32	8-Feb-16
SS-16B	8-Sep-15	Nitzschia palea	14	8-Feb-16
SS-16B	8-Sep-15	Nitzschia paleacea	273	8-Feb-16
SS-16B	8-Sep-15	Nitzschia supralitorea	7	8-Feb-16
SS-16B	8-Sep-15	Planothidium frequentissimum	8	8-Feb-16
SS-16B	8-Sep-15	Planothidium haynaldii	2	8-Feb-16
SS-16B	8-Sep-15	Pseudostaurosira brevistriata	10	8-Feb-16
SS-16B	8-Sep-15	Reimeria sinuata	1	8-Feb-16

SS-16B	8-Sep-15	Rhoicosphenia abbreviata	3	8-Feb-16
SS-16B	8-Sep-15	Sellaphora pupula	1	8-Feb-16
SS-16B	8-Sep-15	Staurosira construens var. pumila	7	8-Feb-16
SS-16B	8-Sep-15	Staurosirella leptostauron	2	8-Feb-16
SS-16B	8-Sep-15	Stephanocyclus meneghiniana	12	8-Feb-16
SS-16B	8-Sep-15	Ulnaria oxyrhynchus	1	8-Feb-16
SS-16B	8-Sep-15	Ulnaria ulna	4	8-Feb-16
SS-17D	8-Sep-15	Achnanthidium minutissimum	2	5-Feb-16
SS-17D	8-Sep-15	Cocconeis placentula	1	5-Feb-16
SS-17D	8-Sep-15	Encyonema minutum	7	5-Feb-16
SS-17D	8-Sep-15	Encyonema silesiacum	7	5-Feb-16
SS-17D	8-Sep-15	Eolimna minima	17	5-Feb-16
SS-17D	8-Sep-15	Eolimna subminuscula	11	5-Feb-16
SS-17D	8-Sep-15	Fragilaria vaucheriae	2	5-Feb-16
SS-17D	8-Sep-15	Gomphonema angustatum	3	5-Feb-16
SS-17D	8-Sep-15	Gomphonema parvulum	9	5-Feb-16
SS-17D	8-Sep-15	Gomphonema parvulum var. exilissimum	6	5-Feb-16
SS-17D	8-Sep-15	Gomphonema subclavatum	2	5-Feb-16
SS-17D	8-Sep-15	Halamphora veneta	114	5-Feb-16
SS-17D	8-Sep-15	Mayamaea atomus	144	5-Feb-16
SS-17D	8-Sep-15	Nitzschia amphibia	10	5-Feb-16
SS-17D	8-Sep-15	Nitzschia fonticola	259	5-Feb-16
SS-17D	8-Sep-15	Nitzschia hantzschiana	2	5-Feb-16
SS-17D	8-Sep-15	Nitzschia inconspicua	14	5-Feb-16
SS-17D	8-Sep-15	Nitzschia palea	4	5-Feb-16
SS-17D	8-Sep-15	Nitzschia paleacea	137	5-Feb-16
SS-17D	8-Sep-15	Nitzschia perminuta	2	5-Feb-16
SS-17D	8-Sep-15	Nitzschia supralitorea	4	5-Feb-16
SS-17D	8-Sep-15	Pseudostaurosira brevistriata	5	5-Feb-16
SS-17D	8-Sep-15	Sellaphora pupula	4	5-Feb-16
SS-17D	8-Sep-15	Staurosira construens var. pumila	16	5-Feb-16
SS-17D	8-Sep-15	Staurosira construens var. venter	3	5-Feb-16
SS-17D	8-Sep-15	Staurosirella leptostauron	8	5-Feb-16
SS-17D	8-Sep-15	Stephanocyclus meneghiniana	6	5-Feb-16
SS-17D	8-Sep-15	Thalassiosira pseudonana	1	5-Feb-16
SS-19	8-Sep-15	Achnanthidium exiguum	1	5-Feb-16
SS-19	8-Sep-15	Adlafia minuscula	1	5-Feb-16
SS-19	8-Sep-15	Cocconeis placentula	2	5-Feb-16
SS-19	8-Sep-15	Encyonema silesiacum	24	5-Feb-16
SS-19	8-Sep-15	Encyonema ventricosum	2	5-Feb-16
SS-19	8-Sep-15	Encyonopsis minuta	2	5-Feb-16
SS-19	8-Sep-15	Eolimna minima	23	5-Feb-16
SS-19	8-Sep-15	Eolimna subminuscula	9	5-Feb-16
SS-19	8-Sep-15	Fragilaria vaucheriae	4	5-Feb-16
SS-19	8-Sep-15	Geissleria acceptata	1	5-Feb-16
SS-19	8-Sep-15	Gomphonema innocens	3	5-Feb-16
SS-19	8-Sep-15	Gomphonema parvulum	8	5-Feb-16
SS-19	8-Sep-15	Gomphonema parvulum var. exilissimum	2	5-Feb-16

SS-19	8-Sep-15	Gomphonema subclavatum	1	5-Feb-16
SS-19	8-Sep-15	Halamphora veneta	114	5-Feb-16
SS-19	8-Sep-15	Mayamaea atomus	265	5-Feb-16
SS-19	8-Sep-15	Melosira varians	2	5-Feb-16
SS-19	8-Sep-15	Navicula veneta	2	5-Feb-16
SS-19	8-Sep-15	Nitzschia amphibia	12	5-Feb-16
SS-19	8-Sep-15	Nitzschia fonticola	134	5-Feb-16
SS-19	8-Sep-15	Nitzschia inconspicua	34	5-Feb-16
SS-19	8-Sep-15	Nitzschia palea	6	5-Feb-16
SS-19	8-Sep-15	Nitzschia paleacea	97	5-Feb-16
SS-19	8-Sep-15	Nitzschia pusilla	1	5-Feb-16
SS-19	8-Sep-15	Nitzschia supralitorea	5	5-Feb-16
SS-19	8-Sep-15	Planothidium dubium	3	5-Feb-16
SS-19	8-Sep-15	Planothidium frequentissimum	10	5-Feb-16
SS-19	8-Sep-15	Planothidium lanceolatum	4	5-Feb-16
SS-19	8-Sep-15	Reimeria sinuata	2	5-Feb-16
SS-19	8-Sep-15	Rhoicosphenia abbreviata	4	5-Feb-16
SS-19	8-Sep-15	Staurosira construens var. venter	7	5-Feb-16
SS-19	8-Sep-15	Staurosirella leptostauron	2	5-Feb-16
SS-19	8-Sep-15	Stephanocyclus meneghiniana	10	5-Feb-16
SS-19	8-Sep-15	Ulnaria ulna	3	5-Feb-16

APPENDIX I

VEGETATION MONITORING PHOTOGRAPHS

Figure I1. Upper photo: origin of Transect 54 in Reach F looking north. Lower photo: pocket gophers caused a reduction in perennial plant cover and profusion of mustard weeds. The weed portion is north of the paved trail but short of the creek.

Figure I2. Transect 55 in Reach F from the origin and the terminal end. Perennial plant cover was about 100% here in transition zone-wetland hydrology. Bottom photo is Baltic rush.

Figure I3. Native grasses in Transect 56.

Figure I4. Transect 57 has shown impairment since 2011 when perennial cover exceeded 100%. In 2015, perennial cover was 64%.

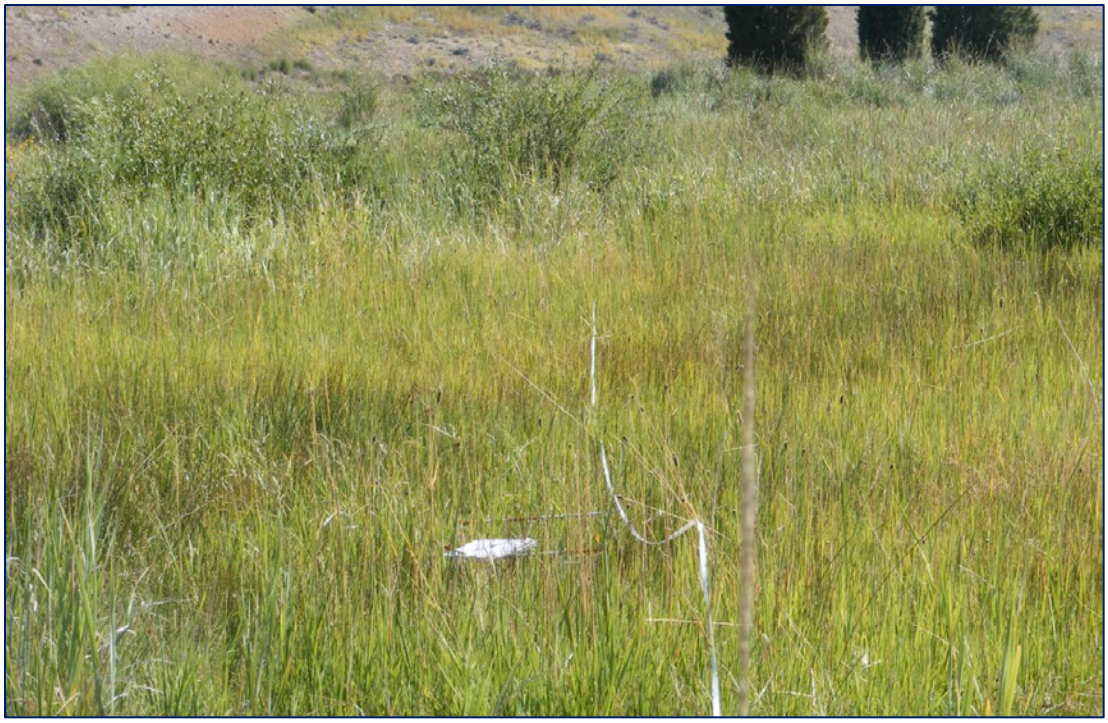

Figure I5. Transect 58 encompasses several hydrologic zones including this wet zone just north of the creek

Figure I6. Pocket gopher mounds at Transect 54 (or possibly Transect 59).

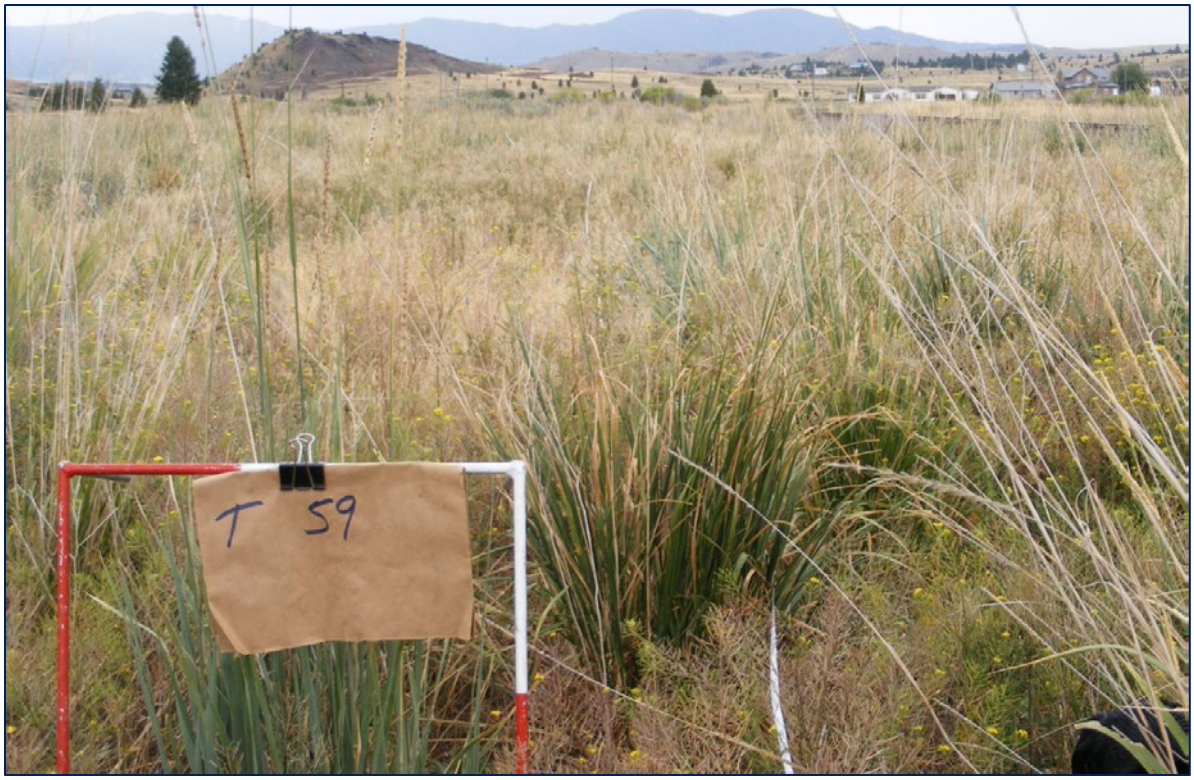

Figure I7. Transect 59 in southern Reach F starts in the west in a generic seeding area with some pocket-gopher diggings. Transect 59 ends in the east in a zone hand-seeded with shrubs.

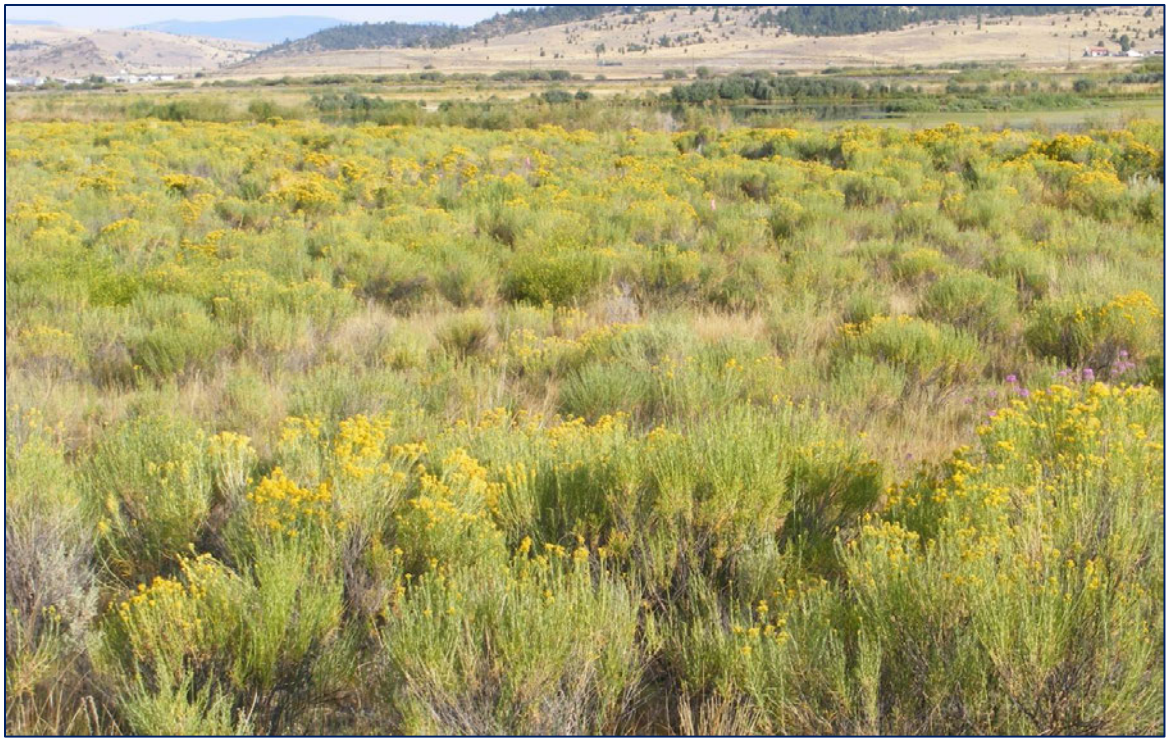

Figure I8. Transect 60 in Reach G is in a rabbitbrush-steppe community.

Figure I9. Some portions of Transect 60 show impairment.

Figure I10. Transect 61 had 72% perennial cover in 2008 and 2011. However, bird's-foot trefoil increased to 100% in 2015. Hydrology is subirrigated-transition zone.

Figure I11. Perennial cover has not changed in Transect 62, although diversity is low and the amount of bird's-foot trefoil has increased at this transition-zone site.

Figure I12. Transect 63 (not 83) has become wetter since sampling occurred in 2011 and surface water occurs in places. Perennial plant cover has increased to about 110% through layering.

Figure I13. Diversity decreased at Transect 64 as Baltic rush proliferated on the east edge of Pond G1. Contamination is evident in a few spots along the transect and cover has declined to about 10%.

Figure I14. Transect 65 in Reach G has about 70% perennial cover, which is moderately high for an upland to subirrigated site, but Transect 65 also has some weeds that may indicate soil limitation.

Figure I15. A thick stand of sow thistle near Transect 65 indicates that dying seeded perennials are being replaced by opportunistic weeds.

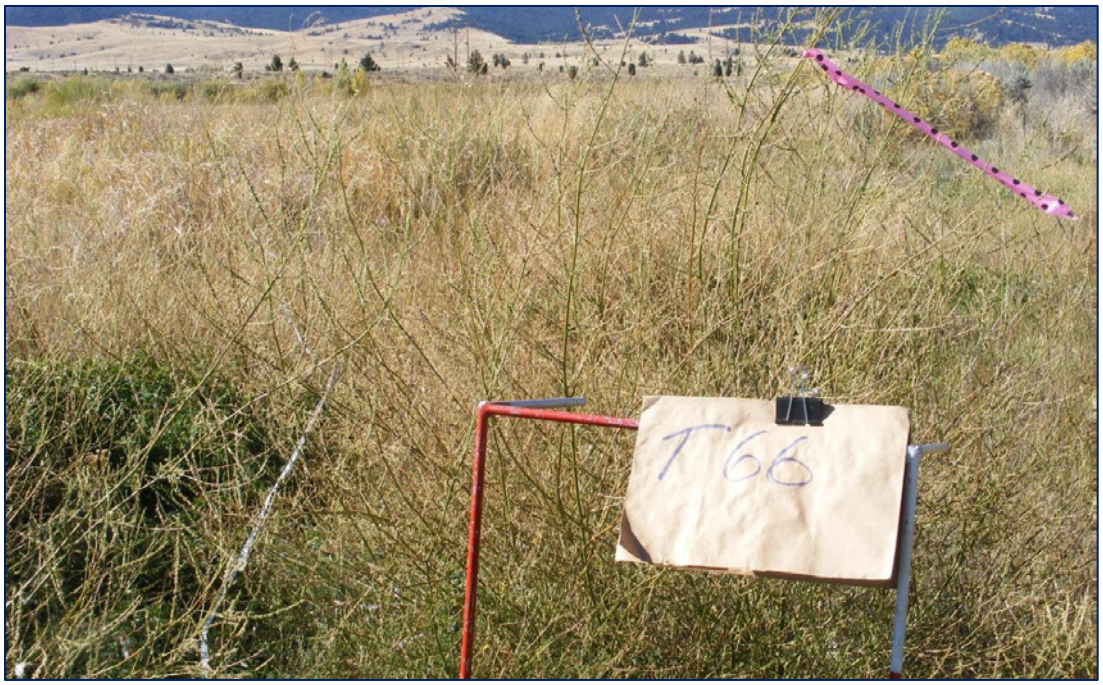

Figure I16. Photo demonstrates a drier portion of Transect 66. The tall plant in the photo is white sweetclover. The ends of the transect have transition-zone hydrology and the center is subirrigated.

Figure I17. Photo demonstrates the wetter portion of Transect 66. Perennial cover along this transect as a whole declined from around 100% in 2008 and 2011 to 77% in 2015 which is relatively low for the transition zone.

Figure I18. Tufted hairgrass provided two-thirds of the relative cover at Transect 67 and indicates a wet site. Transect 67 was wetter in 2015 compared to 2008 and 2011.

Figure I19. Transect 68 is wetter than during prior monitoring years. Plant cover is about the same as in 2011 (about 100%).

Figure I20. Transect 69 has good cover but cover is relatively low for the transition-zone (although part of this transect has subirrigated hydrology). Sweetclover is prevalent at the transect origin. Overall sweetclover accounts for 14% of the relative cover in this transect.

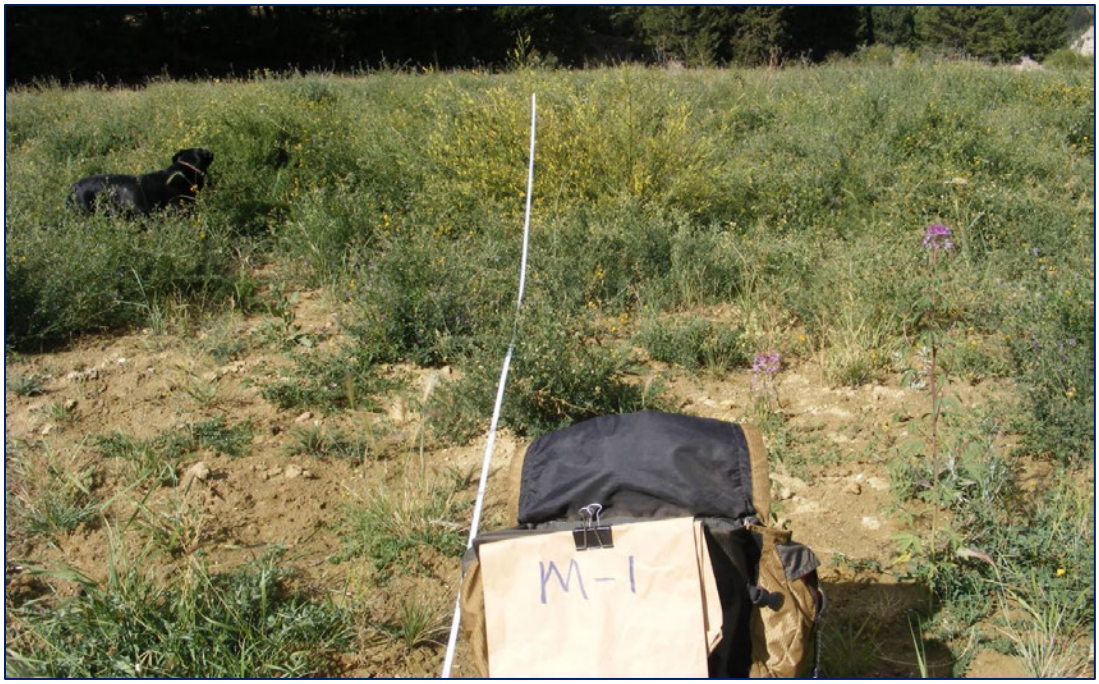

Figure I21. Transect M-1 appears to have salty soil at the start, but overall plant cover was relatively high for an upland due largely to alfalfa.

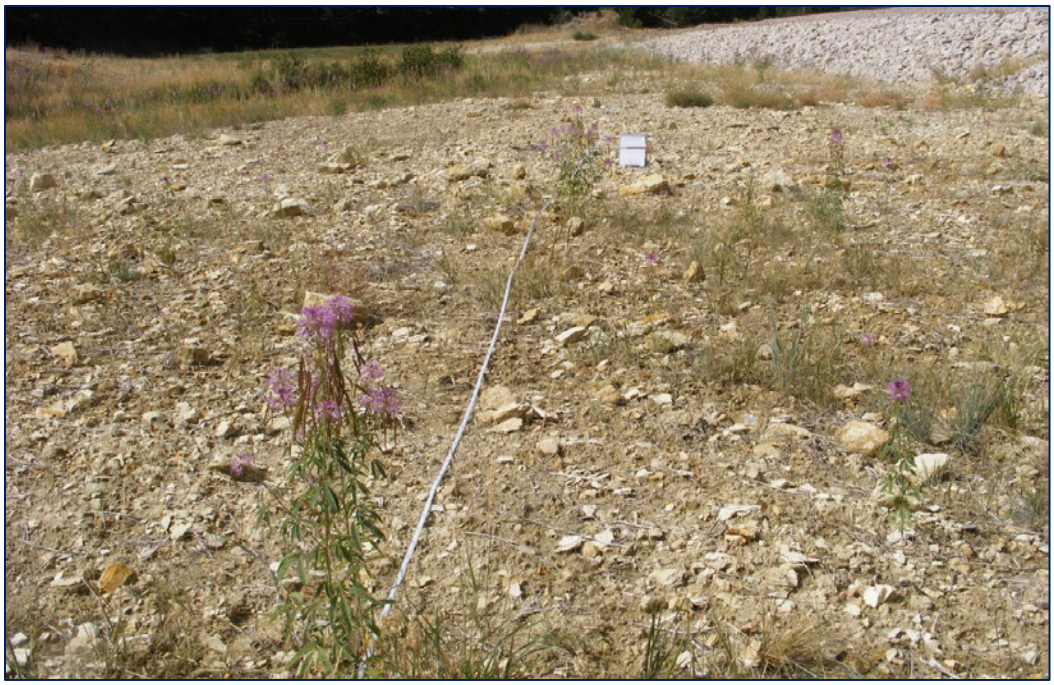

Figure I22. The bladder-campion area north of the creek and south of the railroad tracks in Reach M (Transect M-2). Weed abundance is reduced but interseeding so far has not restored the site.

Figure I23. Plant abundance differs at M-2; plant cover and diversity is relatively high near the creek (right side of photo) and relatively low in the larger floodplain area (left side of photo.

Figure I24. It is unclear what limits vegetation growth in this cool-aspect slope.

Figure I25. Transect M-3, west of M-1 and M-2, has vigorous vegetation likely reflecting high quality dirt.

Figure I26. Transect 1 reveals extensive plant cover for upland hydrology.

Figure I27. The Transect 1 area has extensive yarrow.

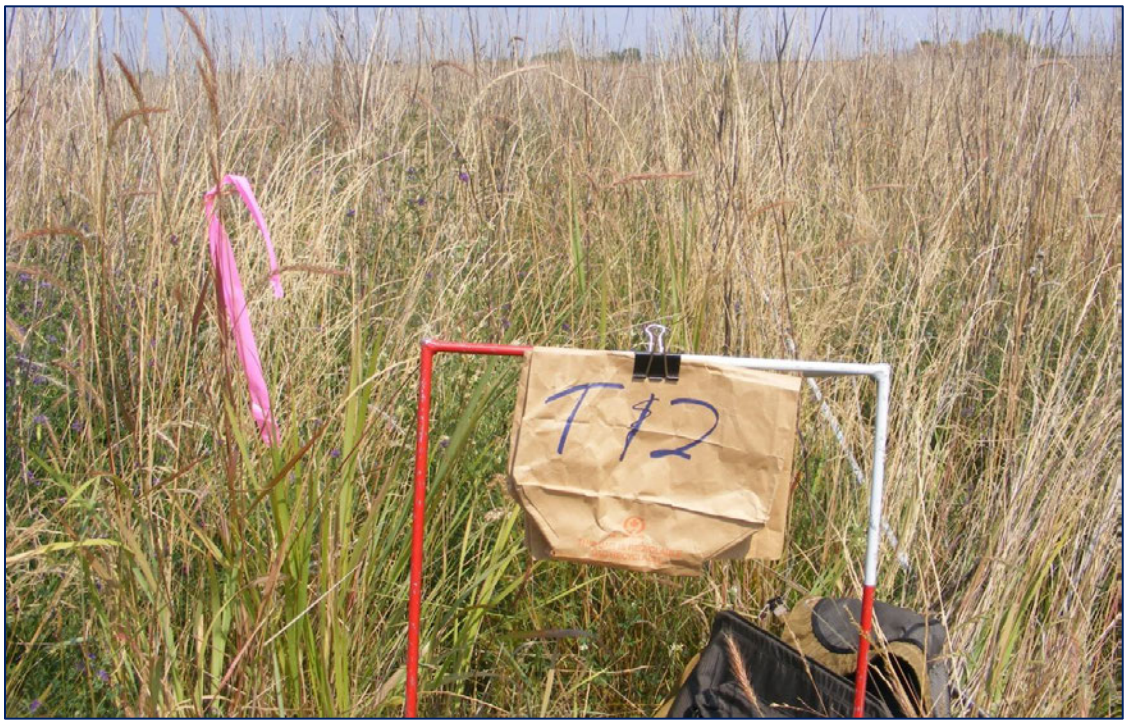

Figure I28. Photo demonstrates extensive vegetation at Transect 2, just west of the Burlington Northern railroad line.

Figure I29. Boot tinted green with chlorophyll at Transect 2, Reach T.

Figure I30. Transect 3, at the ARCO loadout, was seeded in spring on a fresh surface and therefore no kochia is present.

APPENDIX J

VEGETATION MONITORING PHOTOGRAPHS: MISCELLANEOUS

Figure J1. Willows in the wind in lower Reach B south of Rocker.

Figure J2. *Aster ericoides* in Reach H, 2015. This aster, which is somewhat common, was not seeded.

Figure J3. Big transplants in this cage in Reach T are doing rather well considering the subirrigated hydrology and dense herbaceous vegetation.

Figure J4. Another transplant in Reach T did less well, and overall first-year survival was just 42%.

Figure J4. Bank vegetation at the pond in Transect 4 is improving but developing slowly.

Figure J5. A dead cottonwood.

Figure J6. Beavers have the time and persistence to probe browse protectors for weaknesses.

Figure J7. The old road adjacent to German Gulch. All seedings appear successful.

Figure J8. Hand-seeding allowed vegetation to grow in the salty soil in the northwest corner of Reach S.

Figure J9. About 27 acres in Reach T was over-tilled to incorporate lime, fertilizer, and compost, resulting in kochia stagnation. Pictured is the kochia litter from 2014 in 2015.

Figure J10. Sprayed whitetop in the over-tilled area in Figure J9.

Figure J11. Repeated hand-seeding of this old road (south of the creek in Reach I; west of the borrow-area road). This area now has more vigorous vegetation growth than adjacent, non-hand-seeded areas.

Figure J12. Algae crust in a beaver-flooded area of Reach E. The lower photo shows crust detail on plant litter. This area is around 60 meters from the creek.

Figure J13. *Bidens cernua* and *Epilobium ciliatum* in the floodplain after (beaver) flood waters receded. Without flooding, the site is too dry for these wetland-streambank plants.

Figure J14. Copious weed seedlings in a once-flooded area.

Figure J15. This poor road-narrowing seeding in Reach S will likely require additional treatment.

Figure J16. A wetland complex in Reach G looking south and southwest.

Figure J15. The Reach O streambank in late summer, 2015.

Figure J15. Volunteer *Bidens cernua* on the streambank coir in Reach O; late summer, 2015.

Figure J16. Meadow in Reach O.

Figure J17. Over-seeding of the banks provided a plethora of light-seeded species, including sagebrushes.

Figure J18. Underneath the bee-plant litter in Reach T, a sward of grasses and forbs.

Figure J19. Puffball growing in Reach G dirt.

Figure J20. Foreground is essentially weed-free relict vegetation in northern Reach G. It is difficult to determine where the background vegetation transitions to SSTOU revegetation.

Figure J21. This large red "flower" is firecracker penstemon; a Colorado native, along the trail in Reach A.

Figure J22. A trailside volunteer; *Oenothera villosa* hairy evening primrose.

Figure J23. One of the trail seeding penstemons.

Figure J24. Weeds along the Greenway trail.

Figure J25. Rabbitbrush girdled by meadow voles, Reach A.

Figure J26. Vole trail through a rather wet site.

Figure J27. Shrub diversity near boundary of Reaches G and H south of the creek.

APPENDIX K

VEGETATION DATA

Table K1. Transect 54, Reach F, 2015, Canopy Coverage and Frequency, Subirrigated Zone. (Had to adjust for trail, one earlier and one plot later than the 5-meter interval.)

The vegetation here was hugely affected by pocket gophers and is much weedier with big declines in alfalfa and slender wheatgrass and increases in tumblemustard and Basin wildrye.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%	%	
INTRODUCED ANNUALS			
Sisymbrium loeselii	34.7	40.8	55
Thlaspi arvense	1.0	1.2	5
Subtotal	35.7	43.0	
NATIVE PERENNIAL GRASSES AND GRASSLIKE			
Elymus cinereus	37.9	44.6	75
Elymus trachycaulus	0.9	1.1	10
Subtotal	38.8	45.7	
INTRODUCED PERENNIAL GRASSES			
Alopecurus arundinaceus	1.5	1.8	5
Bromus inermis	1.2	1.4	5
Festuca ovina	0.8	0.9	15
Subtotal	3.5	4.1	
INTRODUCED PERENNIAL FORBS			
Cirsium arvense	1.5	1.8	10
INTRODUCED PERENNIAL LEGUMES			
Medicago sativa	4.0	4.7	30
NATIVE SUBSHRUBS			
Artemisia dracunculus	1.5	1.8	5
Total Plant Cover	85.0	100.1	
Bare Soil	2.3		35
Coarse Fragments	0.1		5
Plant Litter	85.9		100

Table K2. Transect 55, Reach F, 2011, Canopy Coverage and Frequency, Mostly Transition Zone. Especially wet in the second half of the transect.

Lost more than half the 2011 species. Big increase in Baltic Rush.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%	%	%
INTRODUCED ANNUALS			
Stellaria sp.	0.3	0.3	10
NATIVE PERENNIAL GRASSES AND GRASSLIKE			
Carex nebrascensis	5.2	5.5	15
Deschampsia cespitosa	1.0	1.0	10
Eleocharis palustris	1.0	1.0	5
Juncus arcticus	50.9	51.1	90
Polypogon monspeliensis	8.7	8.7	45
Triglochin maritima	0.2	0.2	10
Subtotal	67.0	67.5	
INTRODUCED PERENNIAL GRASSES			
Agrostis stolonifera	0.2	0.2	5
Alopecurus arundinaceus	12.2	12.2	55
Poa pratensis	0.1	0.1	5
Subtotal	12.5	12.5	
NATIVE PERENNIAL FORBS			
Aster no flws.	3.5	3.5	10
Epilobium ciliatum	5.8	5.8	55
Potentilla anserina	7.6	7.6	43
Subtotal	16.9	16.9	
INTRODUCED PERENNIAL FORBS			
Sonchus sp. could be the annual one	0.1	0.1	5
NATIVE SHRUBS			
Salix exigua	2.7	2.7	15
Total Plant Cover	99.5	100.0	
Moss	3.6	3.5	25
Bare Soil	0.4		25
Coarse Fragment	2.3		15
Plant Litter	80.4		100

Table K3. Transect 56, Reach F, 2015, Canopy Coverage and Frequency, Subirrigated Zone. About half is salt-impaired; no shrubs on transect.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
INTRODUCED ANNUALS			
Sisymbrium loeselii	0.6	0.7	10
INTRODUCED BIENNIALS			
Melilotus officinalis	4.0	4.6	20
NATIVE PERENNIAL GRASSES AND GRASSLIKE			
Elymus cinereus	44.1	51.2	100
Elymus trachycaulus	5.0	5.8	65
Hordeum jubatum	3.7	4.3	40
Puccinellia nuttalliana	5.1	5.9	45
Subtotal	57.9	67.2	
INTRODUCED PERENNIAL GRASSES			
Alopecurus arundinaceus	0.1	0.1	5
Festuca ovina	2.2	2.6	20
Poa compressa	0.2	0.2	5
Subtotal	2.5	2.9	
NATIVE PERENNIAL FORBS			
Symphyotrichum ascendens	9.9	11.5	40
Symphyotrichum ericoides	0.9	1.0	20
Symphyotrichum falcatum or integrifolius	5.5	6.4	20
Subtotal	16.3	18.9	
INTRODUCED PERENNIAL FORBS			
Sonchus uliginosus	4.0	4.8	25
INTRODUCED PERENNIAL LEGUMES			
Medicago sativa	0.8	0.9	5
Total Plant Cover	86.1	100.0	
Bare Soil	8.4		80
Coarse Fragments	0.4		30
Plant Litter	77.8		100

Table K4. Transect 57, Reach F, 2015, Canopy Coverage and Frequency, Subirrigated to Upland (new transect). [Shortened to 14 sample points including first and last due to trail. Plant cover is way down from 2011. Alfalfa previously #1 almost disappeared. Basin wildrye increased. Spots of obvious impairment.]

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%	%	%
INTRODUCED ANNUALS			
Kochia scoparia	0.1	0.1	7
Sisymbrium loeselii	13.8	17.5	71
Sonchus it could be perenn.	0.3	0.4	7
Subtotal	14.2	18.0	
NATIVE PERENNIAL GRASSES AND GRASSLIKE			
Elymus cinereus	45.2	57.4	80
Elymus trachycaulus	1.0	1.3	21
Koeleria macrantha	0.1	0.1	7
Subtotal	46.3	58.8	
INTRODUCED PERENNIAL GRASSES			
Festuca ovina	12.6	16.0	50
INTRODUCED PERENNIAL LEGUMES			
Medicago sativa	5.2	6.6	14
NATIVE SHRUBS			
Sarcobatus vermiculatus	0.4	0.5	7
Total Plant Cover	78.7	99.9	
Bare Soil	3.0		43
Coarse Fragments	0.2		21
Plant Litter	87.2		100

Table K5. Transect 58, Reach F, 2015, Canopy Coverage and Frequency, Mostly Transition Zone, Subirrigated West End, Wetland Toward East Terminus. Creeping foxtail, which doubled, at the first half, yarrow the second. *Epilobium ciliatum* increased too while bird's-foot trefoil and Canada bluegrass decreased as did total plant cover. Diversity declined.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
INTRODUCED ANNUALS AND BIENNIALS			
Sisymbrium loeselii	2.5	2.8	10
Tragopogon dubius	0.2	0.2	5
	---	---	
Subtotal	2.7	3.0	
NATIVE PERENNIAL GRASSES AND GRASSLIKE			
Elymus cinereus	13.0	14.7	30
Festuca rubra	6.2	7.0	40
Juncus arcticus	4.3	4.8	40
Scirpus microcarpus	0.1	0.1	5
	---	---	
Subtotal	23.6	26.6	
INTRODUCED PERENNIAL GRASSES			
Alopecurus arundinaceus	25.9	29.2	50
Poa compressa	1.5	1.7	10
	---	---	
Subtotal	27.4	30.9	
NATIVE PERENNIAL FORBS			
Achillea millefolium	22.6	25.4	40
Epilobium ciliatum	1.0	1.1	5
Potentilla anserina	4.6	5.2	30
	---	---	
Subtotal	28.2	31.7	
INTRODUCED PERENNIAL FORBS			
Sonchus could be annual	0.3	0.3	10
INTRODUCED PERENNIAL LEGUMES			
Lotus corniculatus	4.9	5.5	35
NATIVE SHRUBS			
Salix bebbiana	0.8	0.9	15
Salix exigua	1.0	1.1	10
	---	---	
Subtotal	1.8	2.0	

Table K5 continued	Cover	Relative Cover	Frequency
Total Plant Cover	88.9	100.0	
Bare Soil	3.2		40
Coarse Fragments	0.1		20
Plant Litter	81.8		100

Table K6. Transect 59, Reach F, 2015, Canopy Coverage and Frequency, Upland.
Another area with severe pocket-gopher activity promoting tumblemustard and reduced perennial cover, both grasses and alfalfa. Where lots of alfalfa, the mid section, little grass is present. The sagebrush is all at the end. Total and perennial cover are down from 2011.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
INTRODUCED ANNUALS			
Sisymbrium loeselii	25.3	32.8	75
NATIVE PERENNIAL GRASSES AND GRASSLIKE			
Elymus cinereus	5.4	7.0	20
Elymus trachycaulus	0.5	0.6	5
	---	---	
Subtotal	5.9	7.6	
INTRODUCED PERENNIAL GRASSES			
Festuca ovina	9.4	12.2	45
INTRODUCED PERENNIAL FORBS			
Cirsium arvense	0.2	0.3	5
INTRODUCED PERENNIAL LEGUMES			
Medicago sativa	25.5	33.0	60
NATIVE SUBSHRUBS			
Artemisia frigida	0.7	0.9	5
NATIVE SHRUBS			
Artemisia tridentata	6.1	7.9	15
Ericameria nauseosa	4.1	5.3	10
	---	---	
Subtotal	10.2	13.2	

Table K6 continued	Cover	Relative Cover	Frequency
Total Plant Cover	77.2	100.0	
Bare Soil	9.1		85
Coarse Fragments	3.7		60
Plant Litter	76.4		100

Table K7. Transect 60, Reach G, 2015, Canopy Coverage and Frequency, Upland, Impaired. About the same as in 2011.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
NATIVE PERENNIAL GRASSES AND GRASSLIKE			
Elymus lanceolatus	3.6	8.7	50
Elymus trachycaulus	1.0	2.4	20
Koeleria macrantha	1.0	2.4	30
Poa juncifolia var. *ampla*	2.3	5.6	30
Subtotal	7.9	19.1	
INTRODUCED PERENNIAL GRASSES			
Festuca ovina	14.9	36.1	90
INTRODUCED PERENNIAL LEGUMES			
Medicago sativa	1.2	2.9	15
NATIVE SUBSHRUBS			
Artemisia dracunculus	1.2	2.9	15
Artemisia frigida	5.5	13.3	80
Artemisia ludoviciana	0.3	0.7	15
Subtotal	7.0	16.9	
NATIVE SHRUBS			
Artemisia cana	1.0	2.4	30
Artemisia tridentata	3.0	7.3	60
Ericameria nauseosa	6.3	15.3	40
Subtotal	10.3	25.0	
Total Plant Cover	41.3	100.0	

Table K7 continued	Cover	Relative Cover	Frequency
Bare Soil	58.6		100
Coarse Fragments	1.0		100
Plant Litter	32.1		100

Table K8. Transect 61, Reach G, 2015, Canopy Coverage and Frequency, More Subirrigated than Transition Zone. This area improved mainly by virtue of bird's-foot trefoil. Grasses reduced.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
INTRODUCED BIENNIALS			
Melilotus officinalis	3.7	3.5	20
NATIVE PERENNIAL GRASSES			
Deschampsia cespitosa	2.7	2.5	15
Elymus cinereus	1.2	1.1	15
Elymus lanceolatus	0.4	0.4	10
Elymus smithii	1.7	1.6	25
Elymus trachycaulus	4.1	3.9	45
Hordeum jubatum	6.2	5.9	70
Puccinellia nuttalliana	6.6	6.2	35
Sporobolus airoides	1.1	1.0	5
Subtotal	24.0	22.6	
INTRODUCED PERENNIAL GRASSES			
Agrostis stolonifera	3.3	3.1	20
Alopecurus arundinaceus	3.7	3.5	40
Subtotal	7.0	6.6	

Table K8 continued

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
NATIVE PERENNIAL FORBS			
Achillea millefolium	0.4	0.4	5
Aster ascendens	7.5	7.1	45
Aster ericoides	0.2	0.2	5
Aster pansus	0.7	0.7	15
	---	---	
Subtotal	8.8	8.4	
INTRODUCED LESGUMES			
Lotus corniculatus	61.9	58.5	75
INTRODUCED PERENNIAL FORBS			
Sonchus sp.	0.3	0.3	10
NATIVE SHRUBS			
Salix boothii	0.2	0.2	5
Total Plant Cover	105.9	100.0	
Bare Soil	2.0		15
Coarse Fragments	---		---
Litter	80.6		100

Table K9. Transect 62, Reach G, 2015, Canopy Coverage and Frequency, Mostly Transition Zone. Small increase in cover, more bird's-foot trefoil, fewer forbs.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
INTRODUCED ANNUALS			
Sonchus asper	0.4	0.4	10
INTRODUCED BIENNIALS			
Melilotus officinalis	8.5	8.0	15

Table K9 continued

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%	%	
NATIVE PERENNIAL GRASSES AND GRASSLIKE			
Deschampsia cespitosa	2.7	2.5	5
Elymus cinereus	4.3	4.0	20
Elymus trachycaulus	0.9	0.8	15
Festuca rubra	4.2	4.0	20
Hordeum jubatum	3.3	3.1	30
Juncus arcticus	3.5	3.3	20
Puccinellia nuttalliana	7.8	7.3	50
Spartina pectinata	9.5	8.9	20
Triglochin maritima	3.4	3.2	25
Subtotal	39.6	37.0	
INTRODUCED PERENNIAL GRASSES			
Agrostis stolonifera	3.4	3.2	20
Alopecurus arundinaceus	4.8	4.5	35
Subtotal	8.2	7.7	
NATIVE PERENNIAL FORBS			
Symphyotrichum ascendens	7.4	7.0	35
INTRODUCED PERENNIAL FORBS			
Sonchus arvensis	16.5	15.5	45
INTRODUCED LEGUMES			
Lotus corniculatus	25.8	24.3	60
Total Plant Cover	106.4	100.0	
Bare Soil	1.6		20
Coarse Fragments	---		---
Plant Litter	79.5		100

Table K10. Transect 63, Reach G, 2015, Canopy Coverage and Frequency, Mostly Transition Zone but Especially in the West. Bird's-foot trefoil increased greatly, alkaligrass and others disappeared, total cover outstanding.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
INTRODUCED BIENNIALS			
Melilotus officinalis	13.7	10.9	30
NATIVE PERENNIAL GRASSES AND GRASSLIKE			
Calamagrostis stricta var. *inexpansa*	4.4	3.5	15
Elymus cinereus	2.0	1.6	5
Elymus trachycaulus	19.1	15.2	75
Festuca rubra	0.7	0.6	10
Hordeum jubatum	1.3	1.0	25
Juncus arcticus	5.2	4.1	15
Triglochin maritima	0.7	0.6	15
Typha angustifolia	0.3	0.2	10
Subtotal	33.7	26.8	
INTRODUCED PERENNIAL GRASSES			
Agrostis stolonifera	1.7	1.3	15
Alopecurus arundinaceus	0.2	0.2	5
Elymus repens	0.2	0.2	5
Subtotal	2.1	1.7	
NATIVE PERENNIAL FORBS			
Epilobium ciliatum	2.2	1.8	10
Galium sp.	0.2	0.2	5
Ranunculus cymbalaria	2.0	1.6	10
Symphyotrichum ascendens	6.1	4.9	40
Symphyotrichum ciliatum	0.2	0.2	5
Veronica americana	2.2	1.7	10
Subtotal	12.9	10.4	
INTRODUCED PERENNIAL FORBS			
Cirsium arvense	0.5	0.4	15
Sonchus arvensis	0.5	0.4	10
Subtotal	1.0	0.8	

Table K10 continued

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
INTRODUCED LEGUMES			
Lotus corniculatus	51.8	41.3	70
Trifolium repens	9.3	7.4	10
	---	---	
Subtotl	61.1	48.7	
NATIVE SHRUBS			
Rosa woodsii	0.5	0.4	10
Salix bebbiana	0.3	0.2	5
	---	---	
Subtotal	0.8	0.6	
Total Plant Cover	125.3	99.9	
Bare Soil	---		---
Coarse Fragments	---		---
Plant Litter	80.5		100
Water	0.7		10

Table K11. Transect 64, Reach G, 2015, Canopy Coverage and Frequency, Subirrigated and Transition Zone. Baltic rush almost entirely replaced the previous diversity. 15 species sampled in 2011; 7 this year. Some contamination present about ¾ down the transect. Basin wildrye was unchanged.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
NATIVE PERENNIAL GRASSES AND RUSHES			
Deschampsia cespitosa	0.4	0.5	5
Elymus cinereus	13.4	16.1	60
Juncus balticus	68.2	82.0	100
	---	---	
Subtotal	45.6	98.6	
INTRODUCED PERENNIAL GRASSES			
Agrostis stolonifera	0.5	0.6	10
NATIVE PERENNIAL FORBS			
Ranunculus cymbalaria	0.1	0.1	5

Table K11 continued

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
INTRODUCED PERENNIAL FORBS			
Sonchus sp.	0.6	0.7	5
Total Plant Cover	83.2	100.0	
Bare Soil	0.6		15
Coarse Fragments	0.2		10
Litter	87.7		100

Table K12. Transect 65, Reach G, 2015, Canopy Coverage and Frequency, East Subirrigated, West Upland Zone. Plant cover about the same as 2011. Relocated endpoint. Western aster increased greatly.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
NATIVE ANNUALS			
Chenopodium berlandieri	0.2	0.3	10
INTRODUCED ANNUALS			
Kochia scoparia	0.7	1.0	5
NATIVE PERENNIAL GRASSES			
Elymus canadensis	0.9	1.3	15
Elymus cinereus	5.0	7.0	5
Elymus lanceolatus	8.7	12.3	35
Elymus smithii	4.5	6.4	60
Elymus trachycaulus	5.5	7.8	50
Hordeum jubatum	0.1	0.1	5
Puccinellia nuttalliana	6.6	9.3	45
	---	---	
Subtotal	31.3	44.2	

Table K12 continued

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%	%	
INTRODUCED PERENNIAL GRASSES			
Agroyron elongatum	0.5	0.7	5
Bromus inermis	0.4	0.6	5
Festuca ovina	1.9	2.7	20
Poa compressa	1.7	2.4	10
Poa pratensis	0.3	0.4	5
Subtotal	4.8	6.8	
NATIVE PERENNIAL FORBS			
Symphyotrichum ascendens	16.5	23.3	55
Symphyotrichum ericoides	2.8	4.0	40
Subtotal	19.3	27.3	
INTRODUCED PERENNIAL FORBS			
Sonchus unliginosus	6.2	8.7	30
Taraxacum officinale	0.1	0.1	5
Subtotal	6.3	8.8	
INTRODUCED LEGUMES			
Medicago sativa	5.0	7.0	20
NATIVE SUBSHRUBS			
Artemisia frigida	1.9	2.7	10
SHRUBS			
Ericameria nauseosa	0.5	0.7	5
Sarcobatus vermiculatus	0.9	1.3	5
Subtotal	1.4	2.0	
Total Plant Cover	70.9	100.1	
Bare Soil	13.7		75
Coarse Fragments	1.7		55
Litter	72.0		100

Table K13. Transect 66, Reach G, 2015, Canopy Coverage and Frequency, Subirrigated and Transition Zones. Both ends transition zone, center subirrigated. Total plant cover decreased 22% since 2011. Yarrow and creeping foxtail increased greatly. Most grasses, especially native grasses, and shrubs decreased.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%	%	%
INTRODUCED BIENNIALS			
Melilotus alba	4.3	5.3	10
NATIVE PERENNIAL GRASSES AND RUSHES			
Deschampsia cespitosa	5.5	6.7	20
Elymus cinereus	9.7	11.9	40
Elymus lanceolatus	3.0	3.7	5
Elymus smithii	5.7	7.0	25
Elymus trachycaulus	1.0	2.2	20
Juncus arcticus	2.7	3.3	20
Subtotal	27.6	33.8	
INTRODUCED PERENNIAL GRASSES			
Agrostis stolonifera	4.1	5.0	10
Alopecurus arundinaceus	20.0	24.5	55
Festuca ovina	3.5	4.3	20
Poa compressa	1.4	1.7	15
Subtotal	29.0	35.5	
NATIVE PERENNIAL FORBS			
Achillea millefolium	10.1	12.4	25
Symphyotrichum ascendens	1.6	2.0	25
Symphyotrichum ciliatum	2.9	3.6	20
Subtotal	14.6	18.0	
INTRODUCED FORBS			
Linaria vulgaris	0.1	0.1	5
INTRODUCED LEGUMES			
Lotus corniculatus	5.3	6.5	25
NATIVE SHRUBS			
Artemisia cana	0.3	0.4	5
Rosa woodsii	0.3	0.4	5
Subtotal	0.6	0.8	

Table K13 continued	Cover	Relative Cover	Frequency
Total Plant Cover	81.5	100.0	
Bare Soil	1.7		10
Coarse Fragments	0.4		10
Litter	82.9	\	100

Table K14. Transect 67, Reach G, 2015, Canopy Coverage and Frequency, Mostly Wetland, Some Transition Zone. Seems to have become wetter since last sampling in 2008. Wetland plants common, wheatgrasses gone. Plant cover is way up.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%		
NATIVE ANNUALS			
Castilleja exilis	0.1	0.1	5
NATIVE PERENNIAL GRASSES and GRASSLIKE			
Calamagrostis inexpansa	7.0	7.5	20
Carex aqualilis	6.0	6.4	20
Deschampsia cespitosa	41.2	43.8	65
Eleocharis palustris	4.7	5.0	10
Festuca rubra	2.4	2.6	30
Juncus arcticus	16.2	17.2	55
Triglochin maritima	0.2	0.2	5
Typha angustifolia	0.2	0.2	5
Subtotal	77.9	82.9	
INTRODUCED PERENNIAL GRASSES			
Alopecurus arundinaceus	2.5	2.7	15
Agrostis stolonifera	0.5	0.5	10
Subtotal	3.0	3.2	
NATIVE PERENNIAL FORBS			
Epilobium ciliatum	0.3	0.3	5
Mimulus gutattus	0.2	0.2	5
Veronica Americana	0.2	0.2	10
Subtotal	0.7	0.7	

Table K14 continued

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
SHRUBS			
Salix bebbiana	2.6	2.8	20
Salix boothii	1.0	1.0	5
Salix exigua	8.7	9.3	15
	---	---	
Subtotal	12.3	13.1	
Total Plant Cover	94.0	100.0	
Water	6.3	5.8	35
Moss	1.7	1.6	10
Bare Soil	---		---
Coarse Fragments	---		---
Litter	73.9		100

Table K15. Transect 68, Reach G 2015, Canopy Coverage and Frequency, Mostly Wetland and Transition Zone. Another area that has become wetter with time, but in this case total plant cover remained about the same.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
ANNUALS AND BIENNIALS			
Collomia linearis	0.1	0.1	5
NATIVE PERENNIAL GRASSES			
Deschampsia cespitosa	67.0	66.3	90
Elymus trachycaulus	4.7	4.6	15
Festuca rubra	23.3	23.0	85
Juncus arcticus	1.5	1.5	5
Muhlenbergia asperifolia	0.2	0.2	5
	---	---	
Subtotal	96.7	95.6	

Table K15 continued

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
INTRODUCED PERENNIAL GRASSES			
Agrostis stolonifera	2.7	2.7	20
Alopecurus arundinaceus	0.8	0.8	15
	---	---	
Subtotal	3.5	3.5	
NATIVE PERENNIAL FORBS			
Epilobium ciliatum	0.3	0.3	10
Ranunculus cymbalaria	0.2	0.2	5
	---	---	
Subtotal	0.5	0.5	
SHRUBS			
Salix exigua	0.3	0.3	5
Total Plant Cover	101.1	100.0	
Moss	1.5		15
Water	0.7		10
Bare Soil	---		---
Coarse Fragments	---		---
Litter	73.6		100

Table K16. Transect 69, Reach G, 2015, Canopy Coverage and Frequency, Subirrigated and Transition Zones; put with Transition zone. Yarrow and creeping foxtail increased greatly. Most grasses, especially native grasses, and shrubs decreased.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	----------%----------		
NATIVE ANNUALS			
Castilleja exilis	0.1	0.1	5
INTRODUCED BIENNIALS			
Melilotus officinalis	10.1	13.9	35

Table K16 continued

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%	%	
NATIVE PERENNIAL GRASSES AND RUSHES			
Deschampsia cespitosa	11.9	16.4	50
Elymus canadensis	1.5	2.1	20
Elymus cinereus	0.5	0.7	5
Elymus smithii	6.5	8.9	30
Elymus trachycaulus	18.4	25.3	90
Festuca rubra	2.1	2.9	15
Triglochin maritima	1.0	1.4	5
Subtotal	41.9	57.7	
INTRODUCED PERENNIAL GRASSES			
Alopecurus arundinaceus	0.2	0.3	10
Festuca ovina	2.0	2.7	15
Poa pratensis	4.0	5.5	15
Subtotal	6.2	8.5	
NATIVE PERENNIAL FORBS			
Achillea millefolium	2.0	2.8	10
Symphyotrichum ascendens	8.4	11.6	45
Symphyotrichum ciliatum	2.8	3.9	20
Subtotal	13.2	18.3	
INTRODUCED FORBS			
Cirsium arvense	0.1	0.1	10
Sonchus arvensis	1.0	1.4	10
Subtotal	1.1	1.5	
Total Plant Cover	72.6	100.0	
Bare Soil	0.1		5
Coarse Fragments	0.1		5
Litter	85.2	\	100

Table K17. Transect L-1, Reach L, 2015, Canopy Coverage and Frequency, Upland.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%		
ANNUALS and BIENNIALS			
Melilotus officinalis	1.7	1.9	5
NATIVE PERENNIAL GRASSES AND GRASSLIKE			
Elymus canadensis	6.6	7.4	55
Elymus lanceolatus	2.7	3.0	15
Elymus trachycaulus	0.9	1.0	10
Koeleria cristata	0.2	0.2	5
Poa juncifolia var. *ampla*	0.7	0.9	15
Sitanion hystrix	0.2	0.2	5
Subtotal	11.3	12.7	
INTRODUCED PERENNIAL GRASSES			
Agrostis stolonifera	0.3	0.3	5
Poa compressa	1.2	1.4	20
Poa pratensis	0.2	0.2	5
Subtotal	1.7	1.9	
NATIVE PERENNIAL FORBS			
Achillea millefolium	0.6	0.7	15
Artemisia frigida	0.1	0.1	5
Artemisia ludoviciana	0.4	0.5	20
Subtotal	1.1	1.3	
INTRODUCED PERENNIAL LEGUMES			
Medicago sativa	72.9	82.2	95
Total Plant Cover	88.7	100.0	
Bare Soil	14.2		60
Coarse Fragments	1.7		60
Plant Litter	71.5		100

Table K18. Transect L-2, Reach L, 2015, Canopy Coverage and Frequency, Upland.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%	%	
ANNUALS and BIENNIALS			
Bassia scoparia	0.4	2.3	10
Cleome serrulata	0.5	3.0	15
Thlaspi arvense	0.9	5.4	15
Subtotal	1.8	10.7	
NATIVE PERENNIAL GRASSES AND GRASSLIKE			
Elymus canadensis	1.0	5.9	30
Elymus lanceolatus	1.4	8.3	15
Elymus smithii	3.9	23.2	50
Elymus trachycaulus	1.7	10.2	15
Juncus arcticus	0.1	0.6	5
Poa juncifolia var. *ampla*	1.5	8.9	20
Puccinellia nuttalliana	1.2	7.1	5
Subtotal	10.8	64.2	
INTRODUCED PERENNIAL GRASSES			
Poa compressa	0.3	1.8	5
Poa pratensis	0.2	1.2	5
Subtotal	0.5	3.0	
NATIVE PERENNIAL FORBS			
Achillea millefolium	0.7	4.2	5
Artemisia ludoviciana	1.0	6.0	5
Subtotal	1.7	10.2	
INTRODUCED PERENNIAL LEGUMES			
Medicago sativa	2.0	11.9	5
Total Plant Cover	16.8	100.0	
Bare Soil	14.2		60
Coarse Fragments	1.7		60
Plant Litter	71.5		100

Table K19. Transect M-3, Reach M, 2015, Upland, Canopy Coverage and Frequency.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%	%	
NATIVE PERENNIAL GRASSES AND GRASSLIKE			
Elymus canadensis & *cinereus*	6.0	6.0	60
Koeleria macrantha	0.3	0.3	10
Poa juncifolia var. *ampla*	6.2	6.2	65
Pseudoroegneria spicata	0.5	0.5	10
Puccinellia nuttalliana	0.1	0.1	5
Subtotal	13.1	13.1	
INTRODUCED PERENNIAL GRASSES			
Poa compressa	2.6	2.6	35
NATIVE PERENNIAL FORBS			
Achillea millefolium	1.3	1.3	25
Artemisia ludoviciana	0.6	0.6	30
Subtotal	1.9	1.9	
INTRODUCED PERENNIAL LEGUMES			
Medicago sativa	82.6	82.3	100
NATIVE SHRUBS			
Artemisia cana	0.1	0.1	5
Total Plant Cover	100.3	100.0	
Bare Soil	9.4		75
Coarse Fragments	0.6		40
Plant Litter	74.3		100

Table K20. Transect T-3, ARCO Loadout, Reach T, 2015, Canopy Coverage and Frequency, Upland.

SPECIES	AVERAGE COVER	RELATIVE COVER	FREQUENCY
	%	%	
NATIVE PERENNIAL GRASSES AND GRASSLIKE			
Achnatherum hymenoides	2.4	4.8	40
Elymus canadensis	0.8	1.6	10
Elymus lanceolatus	23.9	47.5	100
Elymus smithii	0.5	1.0	10
Elymus trachycaulus	11.1	22.1	90
Koeleria cristata	4.5	8.9	50
Poa juncifolia var. *ampla*	0.9	1.8	25
Pseudoroegneria spicata	1.5	3.0	25
Sitanion hystrix	3.6	7.2	35
Subtotal	49.2	97.9	
NATIVE PERENNIAL FORBS			
Artemisia frigida	0.8	1.6	20
INTRODUCED PERENNIAL LEGUMES			
Medicago sativa	0.1	0.2	5
NATIVE SHRUBS			
Ericameria nauseosa	0.2	0.4	10
Total Plant Cover	50.3	100.1	
Bare Soil	60.2		100
Coarse Fragments	13.1		100
Plant Litter	16.8		100

APPENDIX L

SSTOU SUBAREA 2 REACH G PONDS SURFACE WATER SAMPLNG DATA SUMMARY REPORT

PIONEER
TECHNICAL SERVICES, INC.

P.O Box 3445, Butte, MT 59702
www.pioneer-technical.com

August 17, 2016

Mr. Joel Chavez
DEQ/MWCB
1225 Cedar Street
P.O. Box 200901
Helena, MT 59620-0901

RE: Stream Side Tailings Operable Unit Subarea 2
Data Summary Report for July 7, 2016 Reach G Ponds Surface Water Sampling

Dear Joel:

At the request of DEQ, Pioneer Technical Services (Pioneer) completed surface water sampling of six individual ponds located south of Ramsay, MT in Reach G of the Streamside Tailing Operable Unit. Sampling and analysis was conducted to provide data indicating that the stream and floodplain remedy are upholding the standards set forth in the Record of Decision. The ponds were analyzed for total recoverable and dissolved metals (arsenic, cadmium, copper, lead, and zinc), total and dissolved mercury, nitrate and nitrite, hardness, and total and ortho phosphorus.

Sampling began and was complete on July 6, 2016. The samples were delivered to the MSE Laboratory on July 7, 2016 and results were sent to Pioneer on July 22, 2016. Pioneer completed the enclosed Data Summary Report including project background, sampling methods, laboratory results, and hardness adjusted standards for applicable metals.

Please call if you have any questions or comments.

Sincerely,

Logan Dudding
Staff Engineer

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Anaconda, MT 59711
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HELENA
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Helena, MT 59601
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SSTOU Subarea 2 Reach G Ponds Surface Water Sampling

Data Summary Report

Prepared for:

Montana Department of Environmental Quality

1225 Cedar Street, Helena, MT 59601

Prepared by:

Pioneer Technical Services, Inc.

P. O. Box 3445 Butte, Montana 59702

August 17, 2016

1 BACKGROUND

On July 6, 2016, surface water samples were collected from six separate ponds along Silver Bow Creek south of Ramsay, Montana and west of the Port of Montana near Silver Bow, Montana (Figure 1). This area of Silver Bow Creek is referred to as Reach G of the Streamside Tailings Operable Unit. The ponds are located south of the stream and north of German Gulch Road and were constructed during remediation of the stream and floodplain (Figure 2). The Montana Department of Environmental Quality (DEQ) was approached by a public entity which requested that DEQ analyze the surface water for contaminants of concern. The interested party made the request after observing the ponds to have a slightly green color. DEQ agreed to the request to ensure that the stream and floodplain remedy are upholding the standards set forth in the Superfund Record of Decision. DEQ requested that Pioneer Technical Services (Pioneer) collect the samples as part of operation and maintenance activities for the Streamside Tailings Operable Unit.

Specific laboratory analyses were discussed between DEQ and Pioneer prior to sample collection. The discussions concluded that the laboratory analyses would be completed by MSE in Butte, MT and include total recoverable and total dissolved metals (arsenic, cadmium, copper, lead, and zinc), total and dissolved mercury, nitrate and nitrite, hardness, and total and ortho phosphorus. Laboratory results are provided in Appendix A and summarized in Tables 1.1 through 6.2.

2 METHOD

All sampling activities were performed in accordance with Pioneer's standard operating procedures. Water was collected from each pond from the shore using a 16 foot telescopic collection rod. A single bottle was used to collect water and was submerged approximately one foot below the water surface. Turbidity was avoided by cautiously placing the collection rod and bottles to avoid contact with the pond bottom. The collection bottle was used to fill laboratory analysis bottles and a new collection bottle was used at each pond to eliminate potential cross contamination.

Five separate bottles were collected from each pond for laboratory analysis and each bottle was filled from a single collection bottle fastened to the collection rod. Two of the five bottles were filtered (for dissolved metals and ortho phosphate analysis) during collection with a 0.45 µm filter and a peristaltic pump. The suction end of the peristaltic tubing was placed inside of the collection bottle and pumped through the filter into the laboratory bottle. A new filter and tubing were used at each pond to eliminate the potential for cross contamination. Samples were preserved to laboratory standards during collection and each pond was given a field identification of RGP (Reach G Pond). There was no green colored water observed or collected from any of the six ponds.

Field parameters were observed during sample collection. The parameters include pH, conductivity, Oxidation Reduction Potential (ORP), temperature, and Dissolved Oxygen (DO). Water from the collection bottle was poured into a plastic beaker and the probes were placed into the filled beaker. Readings were recorded every five minutes (approximately) while samples

were collected and preserved. Prior to sample collection, the meters and probes that measure each parameter were calibrated by PTS following the manufacture's guidelines (Appendix B).

3 RESULTS

Sampling began at 10:00 and concluded at 14:30 on July 6, 2017. Samples were kept overnight in the refrigerator at the DEQ Ramsay field office and delivered to the MSE Laboratory (including a Chain of Custody) on July 7, 2016 at 12:50. Laboratory results were emailed on July 22, 2016 at 11:30 (Tables 1.1-6.2) (Appendix A). The allowable concentration standards for total recoverable metals are a function of total hardness, specific for each pond. The hardness adjusted standards are provided in Tables 1.3 through 6.3 and the method is provided in Appendix C.

Figures:	1.0 Silver Bow Creek Reach G Ponds Location
	2.0 Silver Bow Creek Reach G Ponds Sample Locations
Tables:	1.1 Reach G Pond 1 Sampling Results
	1.2 Reach G Pond 1 Parameters Observation
	1.3 Reach G Pond 1 Standard Hardness Correction
	2.1 Reach G Pond 2 Sampling Results
	2.2 Reach G Pond 2 Parameters Observation
	2.3 Reach G Pond 2 Standard Hardness Correction
	3.1 Reach G Pond 3 Sampling Results
	3.2 Reach G Pond 3 Parameters Observation
	3.3 Reach G Pond 3 Standard Hardness Correction
	4.1 Reach G Pond 4 Sampling Results
	4.2 Reach G Pond 4 Parameters Observation
	4.3 Reach G Pond 4 Standard Hardness Correction
	5.1 Reach G Pond 5 Sampling Results
	5.2 Reach G Pond 5 Parameters Observation
	5.3 Reach G Pond 5 Standard Hardness Correction
	6.1 Reach G Pond 6 Sampling Results
	6.2 Reach G Pond 6 Parameters Observation
	6.3 Reach G Pond 6 Standard Hardness Correction
Appendices:	A. Laboratory Results and Chain of Custody
	B. Field Parameters Meter Calibration
	C. DEQ Circular 7, Hardness Correction Methods

4 REFERENCES

DEQ, 2012. Circular DEQ-7 – Montana Numeric Water Quality Standards. Montana Department of Environmental Quality, Water Quality Planning Bureau, Helena, Montana. October 2012.

5 FIGURES

N

	DISPLAYED AS:
COORD SYS/ZONE:	MSP
DATUM:	NAD 83
UNITS:	INT. FT.
SOURCE:	NAIP 2015

SCALE IN FEET
0 1500 3000

FIGURE 1

PIONEER TECHNICAL SERVICES, INC.
201 E. BROADWAY, SUITE C
HELENA, MT 59601
(406) 457-8252

SILVER BOW CREEK
REACH G
POND LOCATIONS

DATE: 08-17-16

8/17/2016 12:59:50 PM P:\HELENADATA\GREENWAY\2012\REACH G TRAIL DESIGN\DRAWINGS\DSR\REACHG-DSR-FIG-01-16.DWG

LEGEND:

- REACH G POND SAMPLE LOCATIONS

N

DISPLAYED AS:	
COORD SYS/ZONE:	MSP
DATUM:	NAD 83
UNITS:	INT. FT.
SOURCE:	NAIP 2015

SCALE IN FEET
0 200 400

FIGURE 2

SILVER BOW CREEK
REACH G PONDS
SAMPLING LOCATIONS

PIONEER TECHNICAL SERVICES, INC.
201 E. BROADWAY, SUITE C
HELENA, MT 59601
(406) 457-8252

DATE: 08-17-16

8/17/2016 12:59:56 PM P:\HELENADATA\GREENWAY\2012\REACH G TRAIL DESIGN\DRAWINGS\DSR\REACHG-DSR-FIG-01-16.DWG

6 TABLES

6.1 Table 1. Reach G Pond 1

Table 1.1 Reach G Pond 1

Total Recoverable Metals				
As (µg/L)	Cd (µg/L)	Cu (µg/L)	Pb (µg/L)	Zn (µg/L)
17.1	0.061 J	5.1	0.217 J	13.5

Total Dissolved Metals				
As (µg/L)	Cd (µg/L)	Cu (µg/L)	Pb (µg/L)	Zn (µg/L)
14.5	0.099 J	3.19	0.049 J	52.5

Total Mercury (µg/L)	Dissolved Mercury (µg/L)
ND	ND

Nitrate+Nitrite (mg/L)	Hardness ($CaCo_3$) (mg/L)
ND	680

Total Phosphorus (mg/L)	Ortho Phosphorus (mg/L)
.038 J	.02 J

Notes: ND = Not Detected

J = Analyte detected below the Reporting Limit.

Table 1.2 Reach G Pond 1

Field Parameters

Time	pH	Conductivity (µs/cm)	ORP (mV)	Temp (°C)	DO (mg/L)
10:19	8.45	1388	226.2	17.8	7.44
10:25	8.57	1450	258	17.9	7.51
10:30	8.54	1366	269	18.3	7.29
10:40	8.49	1368	272.2	18.4	7.2

Table 1.3 Reach G Pond 1 Hardness Adjusted Standards

	Human Health Standards	Freshwater Aquatic Life Standards adjusted to 400 mg/L Hardness	
Parameter	Drinking Water (µg/L)	Acute (µg/L)	Chronic (µg/L)
Arsenic	10	340	150
Cadmium	5	8.7	0.76
Copper	1,300	52	30
Lead	15	477	19
Zinc	2,000	388	388

Note: Arsenic is not hardness dependent

A maximum of 400 mg/L was used for hardness calculation (DEQ-7).

6.2 Table 2. Reach G Pond 2

Table 2.1 Reach G Pond 2

Total Recoverable Metals				
As (µg/L)	Cd (µg/L)	Cu (µg/L)	Pb (µg/L)	Zn (µg/L)
53.2	0.761	44.3	2.4	237

Total Dissolved Metals				
As (µg/L)	Cd (µg/L)	Cu (µg/L)	Pb (µg/L)	Zn (µg/L)
49.8	0.22 J	19.3	0.365	52.5

Total Mercury (µg/L)	Dissolved Mercury (µg/L)
ND	ND

Nitrate+Nitrite (mg/L)	Hardness ($CaCo_3$) (mg/L)
ND	152

Total Phosphorus (mg/L)	Ortho Phosphorus (mg/L)
0.074	0.05

Notes: ND = Not Detected

J = Analyte detected below the Reporting Limit.

Table 2.2 Reach G Pond 2

Field Parameters

Time	pH	Conductivity (µs/cm)	ORP (mV)	Temp (°C)	DO (mg/L)
11:30	9.59	284.7	226.7	18.1	6.91
11:35	9.63	316	229.8	18.3	6.85
11:40	9.64	312	220.7	18.5	7.20
11:50	9.65	308	212.8	19.2	7.00
11:55	9.64	310	208.6	19.7	6.95

Table 2.3 Reach G Pond 2 Hardness Adjusted Standards

	Human Health Standards	Freshwater Aquatic Life Standards adjusted to 152 mg/L Hardness	
Parameter	Drinking Water (µg/L)	Acute (µg/L)	Chronic (µg/L)
Arsenic	10	340	150
Cadmium	5	3.3	0.37
Copper	1,300	21	13
Lead	15	139	5
Zinc	2,000	171	171

Note: Arsenic is not hardness dependent

6.3 Table 3. Reach G Pond 3

Table 3.1 Reach G Pond 3

Total Recoverable Metals					Total Mercury (µg/L)	Dissolved Mercury (µg/L)
As (µg/L)	Cd (µg/L)	Cu (µg/L)	Pb (µg/L)	Zn (µg/L)	ND	ND
23.2	1.02	89.5	0.76	227		
					Nitrate+Nitrite (mg/L)	Hardness ($CaCo_3$) (mg/L)
Total Dissolved Metals					0.171	160
As (µg/L)	Cd (µg/L)	Cu (µg/L)	Pb (µg/L)	Zn (µg/L)		
22.3	0.394	39.7	0.085 J	59.9	Total Phosphorus (mg/L)	Ortho Phosphorus (mg/L)
					0.055	0.05

Notes: ND = Not Detected

J = Analyte detected below the Reporting Limit.

Table 3.2 Reach G Pond 3

Field Parameters					
Time	pH	Conductivity (µs/cm)	ORP (mV)	Temp (°C)	DO (mg/L)
12:15	9.75	331	239.4	16.8	7.3
12:20	9.68	298	235.5	16.4	7.68
12:25	9.66	302	234.3	16.1	7.91
12:30	9.65	306	233.6	16	8.02

Table 3.3 Reach G Pond 3 Hardness Adjusted Standards

	Human Health Standards	Freshwater Aquatic Life Standards adjusted to 160 mg/L Hardness	
Parameter	Drinking Water (µg/L)	Acute (µg/L)	Chronic (µg/L)
Arsenic	10	340	150
Cadmium	5	3.4	0.38
Copper	1,300	22	14
Lead	15	149	6
Zinc	2,000	178	178

Note: Arsenic is not hardness dependent

6.4 Table 4. Reach G Pond 4

Table 4.1 Reach G Pond 4

Total Recoverable Metals				
As (µg/L)	Cd (µg/L)	Cu (µg/L)	Pb (µg/L)	Zn (µg/L)
17.8	0.638	49.4	0.334	137

Total Dissolved Metals				
As (µg/L)	Cd (µg/L)	Cu (µg/L)	Pb (µg/L)	Zn (µg/L)
17.5	0.141 J	21.4	0.084 J	32.6

Total Mercury (µg/L)	Dissolved Mercury (µg/L)
ND	ND

Nitrate+Nitrite (mg/L)	Hardness ($CaCo_3$) (mg/L)
0.092	164

Total Phosphorus (mg/L)	Ortho Phosphorus (mg/L)
0.175	0.149

Notes: ND = Not Detected

J = Analyte detected below the Reporting Limit.

Table 4.2 Reach G Pond 4

Field Parameters

Time	pH	Conductivity (µs/cm)	ORP (mV)	Temp (°C)	DO (mg/L)
12;50	9.88	408	198.3	17.2	8.17
12:55	9.79	407	202.4	17.4	8.05
13:00	9.74	403	198.7	17.6	7.9
13:05	9.69	398	169	18	7.8

Table 4.3 Reach G Pond 4 Hardness Adjusted Standards

	Human Health Standards	Freshwater Aquatic Life Standards adjusted to 164 mg/L Hardness	
Parameter	Drinking Water (µg/L)	Acute (µg/L)	Chronic (µg/L)
Arsenic	10	340	150
Cadmium	5	3.5	0.39
Copper	1,300	22	14
Lead	15	153	6
Zinc	2,000	182	182

Note: Arsenic is not hardness dependent

6.5 Table 5. Reach G Pond 5

Table 5.1 Reach G Pond 5

Total Recoverable Metals				
As (µg/L)	Cd (µg/L)	Cu (µg/L)	Pb (µg/L)	Zn (µg/L)
14.3	0.158 J	21	0.668	44.1

Total Dissolved Metals				
As (µg/L)	Cd (µg/L)	Cu (µg/L)	Pb (µg/L)	Zn (µg/L)
13.7	0.038 J	11.2	0.46 J	4.8 J

Total Mercury (µg/L)	Dissolved Mercury (µg/L)
ND	ND

Nitrate+Nitrite (mg/L)	Hardness ($CaCo_3$) (mg/L)
ND	444

Total Phosphorus (mg/L)	Ortho Phosphorus (mg/L)
0.352	0.224

Notes: ND = Not Detected

J = Analyte detected below the Reporting Limit.

Table 5.2 Reach G Pond 5

Field Parameters

Time	pH	Conductivity (µs/cm)	ORP (mV)	Temp (°C)	DO (mg/L)
13:30	10.03	788	191	19.3	7.44
13:35	9.97	783	183.6	19.2	7.33
13:40	9.93	786	178.6	19.2	3.5

Table 5.3 Reach G Pond 5 Hardness Adjusted Standards

	Human Health Standards	Freshwater Aquatic Life Standards adjusted to 400 mg/L Hardness	
Parameter	Drinking Water (µg/L)	Acute (µg/L)	Chronic (µg/L)
Arsenic	10	340	150
Cadmium	5	8.7	0.76
Copper	1,300	52	30
Lead	15	477	19
Zinc	2,000	388	388

Note: Arsenic is not hardness dependent

A maximum of 400 mg/L was used for hardness calculation (DEQ-7).

6.6 Table 6. Reach G Pond 6

Table 6.1 Reach G Pond 6

Total Recoverable Metals				
As (µg/L)	Cd (µg/L)	Cu (µg/L)	Pb (µg/L)	Zn (µg/L)
11.8	0.233 J	6.87	0.973	18.5

Total Dissolved Metals				
As (µg/L)	Cd (µg/L)	Cu (µg/L)	Pb (µg/L)	Zn (µg/L)
11.3	0.105 J	3.43	0.058 J	10.4

Total Mercury (µg/L)	Dissolved Mercury (µg/L)
ND	ND

Nitrate+Nitrite (mg/L)	Hardness ($CaCo_3$) (mg/L)
ND	236

Total Phosphorus (mg/L)	Ortho Phosphorus (mg/L)
0.154	0.113

Notes: ND = Not Detected

J = Analyte detected below the Reporting Limit.

Table 6.2 Reach G Pond 6

Field Parameters

Time	pH	Conductivity (µs/cm)	ORP (mV)	Temp (°C)	DO (mg/L)
14:20	10.09	669	218.9	18.7	7.5
14:25	9.93	563	225.6	18.9	7.33
14:30	9.82	538	232.3	19.4	7.27
14:35	9.69	575	226.3	20.5	6.91

Table 6.3 Reach G Pond 6 Hardness Adjusted Standards

	Human Health Standards	Freshwater Aquatic Life Standards adjusted to 236 mg/L Hardness	
Parameter	Drinking Water (µg/L)	Acute (µg/L)	Chronic (µg/L)
Arsenic	10	340	150
Cadmium	5	5.1	0.51
Copper	1,300	31	19
Lead	15	244	9
Zinc	2,000	248	248

Note: Arsenic is not hardness dependent

Appendix A Laboratory Results and Chain of Custody

Thursday, July 21, 2016

Analytical Laboratory

Joel Chavez
Montana Department of Environmental Quality (DEQ)
1520 East 6th Ave.
Helena, MT 59620

RE: TO 40 SSTOU CONSTRUCTION OVE Work Order: 1607047

Dear Joel Chavez:

MSE Lab Services received 6 sample(s) on 7/7/2016 for the analyses presented in the following report.

Please find enclosed analytical results for the sample(s) received at the MSE Laboratory.

If you have any questions regarding these test results, please feel free to call.

Sincerely,

Sara Ward

Sara Ward
Laboratory Manager
406-494-7334

Enclosure

MSE Analytical Laboratory
P.O. Box 4078
200 Technology Way
Butte, MT 59701
Lab: 406-494-7334
Fax: 406-494-7230
labinfo@mse-ta.com

EMAILED
7/22/16

MSE Lab Services

Date: *21-Jul-16*

CLIENT: Montana Department of Environmental
Project: TO 40 SSTOU CONSTRUCTION OVERSIGHT
Lab Order: 1607047

Analytical Summary Report

Lab Sample ID	Client Sample ID	Date Collected	Date Received
1607047-001A	RGP1	7/6/2016 10:20:00 AM	7/7/2016 12:50
1607047-001B	RGP1	7/6/2016 10:20:00 AM	7/7/2016 12:50
1607047-001C	RGP1	7/6/2016 10:20:00 AM	7/7/2016 12:50
1607047-001D	RGP1	7/6/2016 10:20:00 AM	7/7/2016 12:50
1607047-001E	RGP1	7/6/2016 10:20:00 AM	7/7/2016 12:50
1607047-002A	RGP2	7/6/2016 11:30:00 AM	7/7/2016 12:50
1607047-002B	RGP2	7/6/2016 11:30:00 AM	7/7/2016 12:50
1607047-002C	RGP2	7/6/2016 11:30:00 AM	7/7/2016 12:50
1607047-002D	RGP2	7/6/2016 11:30:00 AM	7/7/2016 12:50
1607047-002E	RGP2	7/6/2016 11:30:00 AM	7/7/2016 12:50
1607047-003A	RGP3	7/6/2016 12:15:00 PM	7/7/2016 12:50
1607047-003B	RGP3	7/6/2016 12:15:00 PM	7/7/2016 12:50
1607047-003C	RGP3	7/6/2016 12:15:00 PM	7/7/2016 12:50
1607047-003D	RGP3	7/6/2016 12:15:00 PM	7/7/2016 12:50
1607047-003E	RGP3	7/6/2016 12:15:00 PM	7/7/2016 12:50
1607047-004A	RGP4	7/6/2016 12:50:00 PM	7/7/2016 12:50
1607047-004B	RGP4	7/6/2016 12:50:00 PM	7/7/2016 12:50
1607047-004C	RGP4	7/6/2016 12:50:00 PM	7/7/2016 12:50
1607047-004D	RGP4	7/6/2016 12:50:00 PM	7/7/2016 12:50
1607047-004E	RGP4	7/6/2016 12:50:00 PM	7/7/2016 12:50
1607047-005A	RGP5	7/6/2016 1:30:00 PM	7/7/2016 12:50
1607047-005B	RGP5	7/6/2016 1:30:00 PM	7/7/2016 12:50
1607047-005C	RGP5	7/6/2016 1:30:00 PM	7/7/2016 12:50
1607047-005D	RGP5	7/6/2016 1:30:00 PM	7/7/2016 12:50
1607047-005E	RGP5	7/6/2016 1:30:00 PM	7/7/2016 12:50
1607047-006A	RGP6	7/6/2016 2:20:00 PM	7/7/2016 12:50
1607047-006B	RGP6	7/6/2016 2:20:00 PM	7/7/2016 12:50

CLIENT:	Montana Department of Environmental
Project:	TO 40 SSTOU CONSTRUCTION OVERSIGHT
Lab Order:	1607047

Analytical Summary Report

Lab Sample ID	Client Sample ID	Date Collected	Date Received
1607047-006C	RGP6	7/6/2016 2:20:00 PM	7/7/2016 12:50
1607047-006D	RGP6	7/6/2016 2:20:00 PM	7/7/2016 12:50
1607047-006E	RGP6	7/6/2016 2:20:00 PM	7/7/2016 12:50

CASE NARRATIVE

Definintions:
DF: Dilution Factor
MDL: Method Detection Limit
ND: Analyzed for, but not detected
J: Estimated concentration above the MDL and below the reporting limit

Analyte Qualifiers:
B: Analyte was detected in the associated method blank
N: Matrix spike recovery and/or matrix spike duplicate recovery was outside laboratory control limits
*: RPD value was outside control limits

CLIENT: Montana Department of Environmental Quality
Project: TO 40 SSTOU CONSTRUCTION OVERSIGHT
Lab Order: 1607047

CASE NARRATIVE

Method: EPA 200.8
Description: **ICP-MS, Total Metals**

General Information:
6 samples were analyzed for total arsenic, cadmium, copper, lead, and zinc using EPA 200.8. All were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.2 with any exceptions noted below.

Initial Calibration (including MS Tune):
All criteria were within method requirements with any exceptions noted below.

Instrument Performance Check:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the reporting limit in the method blank with any exceptions noted below.

Laboratory Fortified Blank:
All laboratory control samples were within QC limits with any exceptions noted below.

Duplicate Sample:
All relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Laboratory Fortified Matrix Spike:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch #: 10139
A duplicate and laboratory fortified matrix spike (LFM) were performed on the following sample(s): 1607047-001B

Additional Comments:

CLIENT: Montana Department of Environmental Quality
Project: TO 40 SSTOU CONSTRUCTION OVERSIGHT
Lab Order: 1607047

CASE NARRATIVE

Method: EPA 200.8
Description: **ICP-MS, Dissolved Metals**

General Information:
6 samples were analyzed for dissolved arsenic, cadmium, copper, lead, and zinc using EPA 200.8. All were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 200.2 with any exceptions noted below.

Initial Calibration (including MS Tune):
All criteria were within method requirements with any exceptions noted below.

Instrument Performance Check:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the reporting limit in the method blank with any exceptions noted below.

Laboratory Fortified Blank:
All laboratory control samples were within QC limits with any exceptions noted below.

Duplicate Sample:
All relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Laboratory Fortified Matrix Spike:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch #: 10140
A duplicate and laboratory fortified matrix spike (LFM) were performed on the following sample(s): 1607047-001C

Additional Comments:

CLIENT: Montana Department of Environmental Quality
Project: TO 40 SSTOU CONSTRUCTION OVERSIGHT
Lab Order: 1607047

CASE NARRATIVE

Method: EPA 245.1
Description: **CVAA, Total Metals**

General Information:
6 samples were analyzed for total mercury using EPA 245.1. All were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibration (including MS Tune):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
No internal standards were utilized.

Method Blank:
All analytes were below the reporting limit in the method blank with any exceptions noted below.

Laboratory Fortified Blank:
All laboratory control samples were within QC limits with any exceptions noted below.

Duplicate Sample:
All relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Laboratory Fortified Matrix Spike:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch #: 10147
A duplicate and laboratory fortified matrix spike (LFM) were performed on the following sample(s): 1607047-002B

Additional Comments:

CLIENT: Montana Department of Environmental Quality
Project: TO 40 SSTOU CONSTRUCTION OVERSIGHT
Lab Order: 1607047

CASE NARRATIVE

Method: EPA 245.1
Description: **CVAA, Dissolved Metals**

General Information:
6 samples were analyzed for dissolved mercury using EPA 245.1. All were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 245.1 with any exceptions noted below.

Initial Calibration (including MS Tune):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
No internal standards were utilized.

Method Blank:
All analytes were below the reporting limit in the method blank with any exceptions noted below.

Laboratory Fortified Blank:
All laboratory control samples were within QC limits with any exceptions noted below.

Duplicate Sample:
All relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Laboratory Fortified Matrix Spike:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch #: 10148
A duplicate and laboratory fortified matrix spike (LFM) were performed on the following sample(s): 1607047-002C

Additional Comments:

CLIENT: Montana Department of Environmental Quality
Project: TO 40 SSTOU CONSTRUCTION OVERSIGHT
Lab Order: 1607047

CASE NARRATIVE

Method: EPA 365.3
Description: **Total Phosphorus**

General Information:
6 samples were analyzed for total phosphorus using E365.3. All were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:
The samples were prepared in accordance with EPA 365.3 with any exceptions noted below.

Initial Calibration (including MS Tune):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the reporting limit in the method blank with any exceptions noted below.

Laboratory Control Sample:
All laboratory control samples were within QC limits with any exceptions noted below.

Duplicate Sample:
All relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Laboratory Matrix Spike:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch #: 10171
A duplicate and laboratory matrix spike (S) were performed on the following sample(s):
1607047-001D

Additional Comments:

CLIENT: Montana Department of Environmental Quality
Project: TO 40 SSTOU CONSTRUCTION OVERSIGHT
Lab Order: 1607047

CASE NARRATIVE

Method: EPA 365.3
Description: **Ortho Phosphorus**

General Information:
6 samples were analyzed for ortho phosphorus using E365.3. All were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibration (including MS Tune):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the reporting limit in the method blank with any exceptions noted below.

Laboratory Control Sample:
All laboratory control samples were within QC limits with any exceptions noted below.

Duplicate Sample:
All relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Laboratory Matrix Spike:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch #: 32983
A duplicate and laboratory matrix spike (S) were performed on the following sample(s):
1607047-002E

Additional Comments:

CLIENT: Montana Department of Environmental Quality
Project: TO 40 SSTOU CONSTRUCTION OVERSIGHT
Lab Order: 1607047

CASE NARRATIVE

Method: EPA 300.0
Description: **E300 Nitrate-Nitrite by Ion Chromatography**

General Information:
6 samples were analyzed for Nitrate-Nitrite using E300.0. All were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibration:
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Method Blank:
All analytes were below the reporting limit in the method blank with any exceptions noted below.

Laboratory Fortified Blank:
All laboratory control samples were within QC limits with any exceptions noted below.

Duplicate Sample:
All relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Laboratory Fortified Matrix Spike:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch #: 32849
A duplicate and laboratory fortified matrix spike (LFM) were performed on the following sample(s):
1607047-001A

Additional Comments:

CLIENT: Montana Department of Environmental Quality
Project: TO 40 SSTOU CONSTRUCTION OVERSIGHT
Lab Order: 1607047

CASE NARRATIVE

Method: SM 2340C
Description: **Hardness**

General Information:
6 samples were analyzed for hardness using SM 2340C. All were received in acceptable condition with any exceptions noted below.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Method Blank:
All analytes were below the reporting limit in the method blank with any exceptions noted below.

Laboratory Control Sample:
All laboratory control samples were within QC limits with any exceptions noted below.

Duplicate Sample:
All relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Laboratory Fortified Matrix Spike:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

QC Batch #: 32892
A duplicate and laboratory matrix spike (S) were performed on the following sample(s):
1607047-001A

Additional Comments:

MSE Lab Services

Date: *21-Jul-16*

CLIENT: Montana Department of Environmental
Client Sample ID: RGP1
Lab Order: 1607047
Collection Date: 7/6/2016 10:20:00 AM
Project: TO 40 SSTOU CONSTRUCTION OVERSI
Lab ID: 1607047-001
Matrix: AQUEOUS

Analyses	Result	MDL	Rpt Limit	Qualifier	Units	DF	Date Analyzed
ICP-MS METALS, TOTAL			**E200.8**	**E200.2**			Analyst: **kgw**
Arsenic	17.1	0.302	1.50		µg/L	1	7/18/2016 12:13:50 PM
Cadmium	0.061	0.028	0.250	J	µg/L	1	7/18/2016 12:13:50 PM
Copper	5.10	0.707	1.25		µg/L	1	7/18/2016 12:13:50 PM
Lead	0.217	0.131	0.250	J	µg/L	1	7/18/2016 12:13:50 PM
Zinc	13.5	1.58	5.00		µg/L	1	7/18/2016 12:13:50 PM
ICP-MS METALS, DISSOLVED			**E200.8**	**E200.2**			Analyst: **kgw**
Arsenic	14.5	0.436	1.50		µg/L	1	7/18/2016 12:13:50 PM
Cadmium	0.099	0.024	0.250	J	µg/L	1	7/18/2016 12:13:50 PM
Copper	3.19	0.337	1.25		µg/L	1	7/18/2016 12:13:50 PM
Lead	0.049	0.039	0.250	J	µg/L	1	7/18/2016 12:13:50 PM
Zinc	5.50	1.83	5.00		µg/L	1	7/18/2016 12:13:50 PM
AQUEOUS MERCURY - DISSOLVED			**E245.1**	**E245.1**			Analyst: **jc/hm**
Mercury	ND	0.044	0.100		µg/L	1	7/18/2016 10:10:00 AM
MERCURY IN DRINKING WATER - TOTAL			**E245.1**	**E245.1**			Analyst: **jc/hm**
Mercury	ND	0.0440	0.100		µg/L	1	7/18/2016 10:10:00 AM
NITRATE+NITRITE BY ION CHROMATOGRAPHY			**E300.0**				Analyst: **jc**
NO2/NO3	ND	0.007	0.060		mg/L	2	7/7/2016 1:40:00 PM
HARDNESS BY TITRATION			**A2340C**				Analyst: **mw**
Hardness (As CaCO3)	680	0.9	5.0		mg/L CaCO3	1	7/11/2016 3:15:00 PM
ORTHO PHOSPHOROUS			**E365.3**				Analyst: **jc**
Phosphorus, Dissolved Orthophosphate (As P)	0.020	0.003	0.025	J	mg/L	1	7/8/2016 9:00:00 AM
TOTAL PHOSPHOROUS - E365.3			**E365.3**	**E365.3**			Analyst: **jc**
Phosphorus, Total (As P)	0.038	0.006	0.050	J	mg/L	1	7/21/2016 12:45:00 PM

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the Reporting Limit	Limit	Reporting Limit
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit (MDL)

MSE Lab Services

Date: *21-Jul-16*

CLIENT: Montana Department of Environmental
Lab Order: 1607047
Project: TO 40 SSTOU CONSTRUCTION OVERSI
Lab ID: 1607047-002

Client Sample ID: RGP2
Collection Date: 7/6/2016 11:30:00 AM
Matrix: AQUEOUS

Analyses	Result	MDL	Rpt Limit	Qualifier	Units	DF	Date Analyzed
ICP-MS METALS, TOTAL			**E200.8**	**E200.2**			Analyst: **kgw**
Arsenic	53.2	0.302	1.50		µg/L	1	7/18/2016 12:13:50 PM
Cadmium	0.761	0.028	0.250		µg/L	1	7/18/2016 12:13:50 PM
Copper	44.3	0.707	1.25		µg/L	1	7/18/2016 12:13:50 PM
Lead	2.40	0.131	0.250		µg/L	1	7/18/2016 12:13:50 PM
Zinc	237	1.58	5.00		µg/L	1	7/18/2016 12:13:50 PM
ICP-MS METALS, DISSOLVED			**E200.8**	**E200.2**			Analyst: **kgw**
Arsenic	49.8	0.436	1.50		µg/L	1	7/18/2016 12:13:50 PM
Cadmium	0.220	0.024	0.250	J	µg/L	1	7/18/2016 12:13:50 PM
Copper	19.3	0.337	1.25		µg/L	1	7/18/2016 12:13:50 PM
Lead	0.365	0.039	0.250		µg/L	1	7/18/2016 12:13:50 PM
Zinc	52.5	1.83	5.00		µg/L	1	7/18/2016 12:13:50 PM
AQUEOUS MERCURY - DISSOLVED			**E245.1**	**E245.1**			Analyst: **jc/hm**
Mercury	ND	0.044	0.100		µg/L	1	7/18/2016 10:10:00 AM
MERCURY IN DRINKING WATER - TOTAL			**E245.1**	**E245.1**			Analyst: **jc/hm**
Mercury	ND	0.0440	0.100		µg/L	1	7/18/2016 10:10:00 AM
NITRATE+NITRITE BY ION CHROMATOGRAPHY			**E300.0**				Analyst: **jc**
NO2/NO3	ND	0.003	0.030		mg/L	1	7/7/2016 1:40:00 PM
HARDNESS BY TITRATION			**A2340C**				Analyst: **mw**
Hardness (As CaCO3)	152	0.9	5.0		mg/L CaCO3	1	7/11/2016 3:15:00 PM
ORTHO PHOSPHOROUS			**E365.3**				Analyst: **jc**
Phosphorus, Dissolved Orthophosphate (As P)	0.050	0.003	0.025		mg/L	1	7/8/2016 9:00:00 AM
TOTAL PHOSPHOROUS - E365.3			**E365.3**	**E365.3**			Analyst: **jc**
Phosphorus, Total (As P)	0.074	0.006	0.050		mg/L	1	7/21/2016 12:45:00 PM

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the Reporting Limit	Limit	Reporting Limit
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit (MDL)

MSE Lab Services

Date: *21-Jul-16*

CLIENT: Montana Department of Environmental
Client Sample ID: RGP3
Lab Order: 1607047
Collection Date: 7/6/2016 12:15:00 PM
Project: TO 40 SSTOU CONSTRUCTION OVERSI
Lab ID: 1607047-003
Matrix: AQUEOUS

Analyses	Result	MDL	Rpt Limit	Qualifier	Units	DF	Date Analyzed
ICP-MS METALS, TOTAL			**E200.8**	**E200.2**			Analyst: **kgw**
Arsenic	23.2	0.302	1.50		µg/L	1	7/18/2016 12:13:50 PM
Cadmium	1.02	0.028	0.250		µg/L	1	7/18/2016 12:13:50 PM
Copper	89.5	0.707	1.25		µg/L	1	7/18/2016 12:13:50 PM
Lead	0.760	0.131	0.250		µg/L	1	7/18/2016 12:13:50 PM
Zinc	227	1.58	5.00		µg/L	1	7/18/2016 12:13:50 PM
ICP-MS METALS, DISSOLVED			**E200.8**	**E200.2**			Analyst: **kgw**
Arsenic	22.3	0.436	1.50		µg/L	1	7/18/2016 12:13:50 PM
Cadmium	0.394	0.024	0.250		µg/L	1	7/18/2016 12:13:50 PM
Copper	39.7	0.337	1.25		µg/L	1	7/18/2016 12:13:50 PM
Lead	0.085	0.039	0.250	J	µg/L	1	7/18/2016 12:13:50 PM
Zinc	59.9	1.83	5.00		µg/L	1	7/18/2016 12:13:50 PM
AQUEOUS MERCURY - DISSOLVED			**E245.1**	**E245.1**			Analyst: **jc/hm**
Mercury	ND	0.044	0.100		µg/L	1	7/18/2016 10:10:00 AM
MERCURY IN DRINKING WATER - TOTAL			**E245.1**	**E245.1**			Analyst: **jc/hm**
Mercury	ND	0.0440	0.100		µg/L	1	7/18/2016 10:10:00 AM
NITRATE+NITRITE BY ION CHROMATOGRAPHY			**E300.0**				Analyst: **jc**
NO2/NO3	0.171	0.003	0.030		mg/L	1	7/7/2016 1:40:00 PM
HARDNESS BY TITRATION			**A2340C**				Analyst: **mw**
Hardness (As CaCO3)	160	0.9	5.0		mg/L CaCO3	1	7/11/2016 3:15:00 PM
ORTHO PHOSPHOROUS			**E365.3**				Analyst: **jc**
Phosphorus, Dissolved Orthophosphate (As P)	0.050	0.003	0.025		mg/L	1	7/8/2016 9:00:00 AM
TOTAL PHOSPHOROUS - E365.3			**E365.3**	**E365.3**			Analyst: **jc**
Phosphorus, Total (As P)	0.055	0.006	0.050		mg/L	1	7/21/2016 12:45:00 PM

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the Reporting Limit	Limit	Reporting Limit
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit (MDL)

MSE Lab Services

Date: *21-Jul-16*

CLIENT: Montana Department of Environmental
Client Sample ID: RGP4
Lab Order: 1607047
Collection Date: 7/6/2016 12:50:00 PM
Project: TO 40 SSTOU CONSTRUCTION OVERSI
Lab ID: 1607047-004
Matrix: AQUEOUS

Analyses	Result	MDL	Rpt Limit	Qualifier	Units	DF	Date Analyzed
ICP-MS METALS, TOTAL			**E200.8**	**E200.2**			Analyst: **kgw**
Arsenic	17.8	0.302	1.50		µg/L	1	7/18/2016 12:13:50 PM
Cadmium	0.638	0.028	0.250		µg/L	1	7/18/2016 12:13:50 PM
Copper	49.4	0.707	1.25		µg/L	1	7/18/2016 12:13:50 PM
Lead	0.334	0.131	0.250		µg/L	1	7/18/2016 12:13:50 PM
Zinc	137	1.58	5.00		µg/L	1	7/18/2016 12:13:50 PM
ICP-MS METALS, DISSOLVED			**E200.8**	**E200.2**			Analyst: **kgw**
Arsenic	17.5	0.436	1.50		µg/L	1	7/18/2016 12:13:50 PM
Cadmium	0.141	0.024	0.250	J	µg/L	1	7/18/2016 12:13:50 PM
Copper	21.4	0.337	1.25		µg/L	1	7/18/2016 12:13:50 PM
Lead	0.084	0.039	0.250	J	µg/L	1	7/18/2016 12:13:50 PM
Zinc	32.6	1.83	5.00		µg/L	1	7/18/2016 12:13:50 PM
AQUEOUS MERCURY - DISSOLVED			**E245.1**	**E245.1**			Analyst: **jc/hm**
Mercury	ND	0.044	0.100		µg/L	1	7/18/2016 10:10:00 AM
MERCURY IN DRINKING WATER - TOTAL			**E245.1**	**E245.1**			Analyst: **jc/hm**
Mercury	ND	0.0440	0.100		µg/L	1	7/18/2016 10:10:00 AM
NITRATE+NITRITE BY ION CHROMATOGRAPHY			**E300.0**				Analyst: **jc**
NO2/NO3	0.092	0.003	0.030		mg/L	1	7/7/2016 1:40:00 PM
HARDNESS BY TITRATION			**A2340C**				Analyst: **mw**
Hardness (As CaCO3)	164	0.9	5.0		mg/L CaCO3	1	7/11/2016 3:15:00 PM
ORTHO PHOSPHOROUS			**E365.3**				Analyst: **jc**
Phosphorus, Dissolved Orthophosphate (As P)	0.149	0.003	0.025		mg/L	1	7/8/2016 9:00:00 AM
TOTAL PHOSPHOROUS - E365.3			**E365.3**	**E365.3**			Analyst: **jc**
Phosphorus, Total (As P)	0.175	0.006	0.050		mg/L	1	7/21/2016 12:45:00 PM

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the Reporting Limit	Limit	Reporting Limit
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit (MDL)

MSE Lab Services

Date: *21-Jul-16*

CLIENT: Montana Department of Environmental
Lab Order: 1607047
Project: TO 40 SSTOU CONSTRUCTION OVERSI
Lab ID: 1607047-005

Client Sample ID: RGP5
Collection Date: 7/6/2016 1:30:00 PM
Matrix: AQUEOUS

Analyses	Result	MDL	Rpt Limit	Qualifier	Units	DF	Date Analyzed
ICP-MS METALS, TOTAL			**E200.8**	**E200.2**			Analyst: **kgw**
Arsenic	14.3	0.302	1.50		µg/L	1	7/18/2016 12:13:50 PM
Cadmium	0.158	0.028	0.250	J	µg/L	1	7/18/2016 12:13:50 PM
Copper	21.0	0.707	1.25		µg/L	1	7/18/2016 12:13:50 PM
Lead	0.668	0.131	0.250		µg/L	1	7/18/2016 12:13:50 PM
Zinc	44.1	1.58	5.00		µg/L	1	7/18/2016 12:13:50 PM
ICP-MS METALS, DISSOLVED			**E200.8**	**E200.2**			Analyst: **kgw**
Arsenic	13.7	0.436	1.50		µg/L	1	7/18/2016 12:13:50 PM
Cadmium	0.038	0.024	0.250	J	µg/L	1	7/18/2016 12:13:50 PM
Copper	11.2	0.337	1.25		µg/L	1	7/18/2016 12:13:50 PM
Lead	0.046	0.039	0.250	J	µg/L	1	7/18/2016 12:13:50 PM
Zinc	4.80	1.83	5.00	J	µg/L	1	7/18/2016 12:13:50 PM
AQUEOUS MERCURY - DISSOLVED			**E245.1**	**E245.1**			Analyst: **jc/hm**
Mercury	ND	0.044	0.100		µg/L	1	7/18/2016 10:10:00 AM
MERCURY IN DRINKING WATER - TOTAL			**E245.1**	**E245.1**			Analyst: **jc/hm**
Mercury	ND	0.0440	0.100		µg/L	1	7/18/2016 10:10:00 AM
NITRATE+NITRITE BY ION CHROMATOGRAPHY			**E300.0**				Analyst: **jc**
NO2/NO3	ND	0.007	0.060		mg/L	2	7/7/2016 1:40:00 PM
HARDNESS BY TITRATION			**A2340C**				Analyst: **mw**
Hardness (As CaCO3)	444	0.9	5.0		mg/L CaCO3	1	7/11/2016 3:15:00 PM
ORTHO PHOSPHOROUS			**E365.3**				Analyst: **jc**
Phosphorus, Dissolved Orthophosphate (As P)	0.224	0.003	0.025		mg/L	1	7/8/2016 9:00:00 AM
TOTAL PHOSPHOROUS - E365.3			**E365.3**	**E365.3**			Analyst: **jc**
Phosphorus, Total (As P)	0.352	0.006	0.050		mg/L	1	7/21/2016 12:45:00 PM

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the Reporting Limit	Limit	Reporting Limit
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit (MDL)

MSE Lab Services

Date: *21-Jul-16*

CLIENT: Montana Department of Environmental
Client Sample ID: RGP6
Lab Order: 1607047
Collection Date: 7/6/2016 2:20:00 PM
Project: TO 40 SSTOU CONSTRUCTION OVERSI
Lab ID: 1607047-006
Matrix: AQUEOUS

Analyses	Result	MDL	Rpt Limit	Qualifier	Units	DF	Date Analyzed
ICP-MS METALS, TOTAL			**E200.8**	**E200.2**			Analyst: **kgw**
Arsenic	11.8	0.302	1.50		µg/L	1	7/18/2016 12:13:50 PM
Cadmium	0.233	0.028	0.250	J	µg/L	1	7/18/2016 12:13:50 PM
Copper	6.87	0.707	1.25		µg/L	1	7/18/2016 12:13:50 PM
Lead	0.973	0.131	0.250		µg/L	1	7/18/2016 12:13:50 PM
Zinc	18.5	1.58	5.00		µg/L	1	7/18/2016 12:13:50 PM
ICP-MS METALS, DISSOLVED			**E200.8**	**E200.2**			Analyst: **kgw**
Arsenic	11.3	0.436	1.50		µg/L	1	7/18/2016 12:13:50 PM
Cadmium	0.105	0.024	0.250	J	µg/L	1	7/18/2016 12:13:50 PM
Copper	3.43	0.337	1.25		µg/L	1	7/18/2016 12:13:50 PM
Lead	0.058	0.039	0.250	J	µg/L	1	7/18/2016 12:13:50 PM
Zinc	10.4	1.83	5.00		µg/L	1	7/18/2016 12:13:50 PM
AQUEOUS MERCURY - DISSOLVED			**E245.1**	**E245.1**			Analyst: **jc/hm**
Mercury	ND	0.044	0.100		µg/L	1	7/18/2016 10:10:00 AM
MERCURY IN DRINKING WATER - TOTAL			**E245.1**	**E245.1**			Analyst: **jc/hm**
Mercury	ND	0.0440	0.100		µg/L	1	7/18/2016 10:10:00 AM
NITRATE+NITRITE BY ION CHROMATOGRAPHY			**E300.0**				Analyst: **jc**
NO2/NO3	ND	0.003	0.030		mg/L	1	7/7/2016 1:40:00 PM
HARDNESS BY TITRATION			**A2340C**				Analyst: **mw**
Hardness (As CaCO3)	236	0.9	5.0		mg/L CaCO3	1	7/11/2016 3:15:00 PM
ORTHO PHOSPHOROUS			**E365.3**				Analyst: **jc**
Phosphorus, Dissolved Orthophosphate (As P)	0.113	0.003	0.025		mg/L	1	7/8/2016 9:00:00 AM
TOTAL PHOSPHOROUS - E365.3			**E365.3**	**E365.3**			Analyst: **jc**
Phosphorus, Total (As P)	0.154	0.006	0.050		mg/L	1	7/21/2016 12:45:00 PM

Qualifiers:

E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below the Reporting Limit	Limit	Reporting Limit
MDL	Method Detection Limit	ND	Not Detected at the Method Detection Limit (MDL)

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Date: *21-Jul-16*
Report Date: *21-Jul-16*

QA/QC SUMMARY REPORT

Client: Montana Department of Environmental
Project: TO 40 SSTOU CONSTRUCTION OVER
Work Order: 1607047
BatchID: 10139

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
Sample ID: ***10139-LRB***			*Method:* ***E200.8***		*Batch ID:* ***10139***			*Analysis Date: 7/18/2016 12:13:50 PM*		
Arsenic	ND	1.50	µg/L							
Cadmium	ND	0.250	µg/L							
Copper	ND	1.25	µg/L							
Lead	ND	0.250	µg/L							
Zinc	ND	5.00	µg/L							
Sample ID: ***10139-LFB***			*Method:* ***E200.8***		*Batch ID:* ***10139***			*Analysis Date: 7/18/2016 12:13:50 PM*		
Arsenic	36.3	1.50	µg/L	40.00	90.7	85	115			
Cadmium	4.80	0.250	µg/L	5.000	96.0	85	115			
Copper	240	1.25	µg/L	250.0	96.1	85	115			
Lead	18.4	0.250	µg/L	20.00	92.2	85	115			
Zinc	478	5.00	µg/L	500.0	95.5	85	115			
Sample ID: ***1607047-001B-DUP***			*Method:* ***E200.8***		*Batch ID:* ***10139***			*Analysis Date: 7/18/2016 12:13:50 PM*		
Arsenic	17.8	1.50	µg/L					3.98	20	
Cadmium	0.085	0.250	µg/L					0	20	J
Copper	4.96	1.25	µg/L					2.86	20	
Lead	0.177	0.250	µg/L					0	20	J
Zinc	12.7	5.00	µg/L					5.95	20	
Sample ID: ***1607047-001B-LFM***			*Method:* ***E200.8***		*Batch ID:* ***10139***			*Analysis Date: 7/18/2016 12:13:50 PM*		
Arsenic	52.5	1.50	µg/L	40.00	88.3	70	130			
Cadmium	4.88	0.250	µg/L	5.000	96.4	70	130			
Copper	222	1.25	µg/L	250.0	86.9	70	130			
Lead	18.7	0.250	µg/L	20.00	92.6	70	130			
Zinc	437	5.00	µg/L	500.0	84.6	70	130			

Qualifiers: NA Sample conc. is > 4*spike level R* RPD NA based on sample concentration

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Date: 21-Jul-16
Report Date: 21-Jul-16

QA/QC SUMMARY REPORT

Client: Montana Department of Environmental
Project: TO 40 SSTOU CONSTRUCTION OVER
Work Order: 1607047
BatchID: 10140

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
Sample ID: ***10140-LRB***			*Method:* ***E200.8***		*Batch ID:* ***10140***		*Analysis Date: 7/18/2016 12:13:50 PM*			
Arsenic	ND	1.50	µg/L							
Cadmium	ND	0.250	µg/L							
Copper	0.500	1.25	µg/L							J
Lead	0.040	0.250	µg/L							J
Zinc	ND	5.00	µg/L							
Sample ID: ***10140-LFB***			*Method:* ***E200.8***		*Batch ID:* ***10140***		*Analysis Date: 7/18/2016 12:13:50 PM*			
Arsenic	37.5	1.50	µg/L	40.00	93.9	85	115			
Cadmium	4.99	0.250	µg/L	5.000	99.8	85	115			
Copper	246	1.25	µg/L	250.0	98.2	85	115			
Lead	19.0	0.250	µg/L	20.00	95.2	85	115			
Zinc	490	5.00	µg/L	500.0	98.0	85	115			
Sample ID: ***1607047-001C-DUP***			*Method:* ***E200.8***		*Batch ID:* ***10140***		*Analysis Date: 7/18/2016 12:13:50 PM*			
Arsenic	16.8	1.50	µg/L					14.8	20	
Cadmium	0.077	0.250	µg/L					0	20	J
Copper	3.29	1.25	µg/L					3.15	20	
Lead	0.039	0.250	µg/L					0	20	J
Zinc	5.36	5.00	µg/L					2.59	20	
Sample ID: ***1607047-001C-LFM***			*Method:* ***E200.8***		*Batch ID:* ***10140***		*Analysis Date: 7/18/2016 12:13:50 PM*			
Arsenic	54.8	1.50	µg/L	40.00	101	70	130			
Cadmium	4.93	0.250	µg/L	5.000	96.6	70	130			
Copper	229	1.25	µg/L	250.0	90.3	70	130			
Lead	19.1	0.250	µg/L	20.00	95.4	70	130			
Zinc	444	5.00	µg/L	500.0	87.8	70	130			

Qualifiers: NA Sample conc. Is > 4*spike level R* RPD NA based on sample concentration

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Date: 21-Jul-16
Report Date: 21-Jul-16

QA/QC SUMMARY REPORT

Client: Montana Department of Environmental
Project: TO 40 SSTOU CONSTRUCTION OVER
Work Order: 1607047
BatchID: 10147

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
Sample ID: ***10147-LRB***			*Method:* ***E245.1***		*Batch ID:* ***10147***		*Analysis Date: 7/18/2016 10:10:00 AM*			
Mercury	ND	0.100	µg/L							
Sample ID: ***LFB-10147***			*Method:* ***E245.1***		*Batch ID:* ***10147***		*Analysis Date: 7/18/2016 10:10:00 AM*			
Mercury	1.10	0.100	µg/L	1.000	110	85	115			
Sample ID: ***1607047-002B-R***			*Method:* ***E245.1***		*Batch ID:* ***10147***		*Analysis Date: 7/18/2016 10:10:00 AM*			
Mercury	ND	0.100	µg/L					0	20	
Sample ID: ***1607047-002B-LFM***			*Method:* ***E245.1***		*Batch ID:* ***10147***		*Analysis Date: 7/18/2016 10:10:00 AM*			
Mercury	1.12	0.100	µg/L	1.000	112	70	130			

Qualifiers: NA Sample conc. Is > 4*spike level R* RPD NA based on sample concentration

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Date: 21-Jul-16
Report Date: 21-Jul-16

QA/QC SUMMARY REPORT

Client: Montana Department of Environmental
Project: TO 40 SSTOU CONSTRUCTION OVER
Work Order: 1607047
BatchID: 10148

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
Sample ID: ***10148-LRB***			*Method:* ***E245.1***		*Batch ID:* ***10148***		*Analysis Date: 7/18/2016 10:10:00 AM*			
Mercury	ND	0.100	µg/L							
Sample ID: ***LFB-10148***			*Method:* ***E245.1***		*Batch ID:* ***10148***		*Analysis Date: 7/18/2016 10:10:00 AM*			
Mercury	1.01	0.100	µg/L	1.000	101	85	115			
Sample ID: ***1607047-002C-R***			*Method:* ***E245.1***		*Batch ID:* ***10148***		*Analysis Date: 7/18/2016 10:10:00 AM*			
Mercury	ND	0.100	µg/L					0	20	
Sample ID: ***1607047-002C-LFM***			*Method:* ***E245.1***		*Batch ID:* ***10148***		*Analysis Date: 7/18/2016 10:10:00 AM*			
Mercury	1.01	0.100	µg/L	1.000	101	70	130			

Qualifiers: NA Sample conc. Is > 4*spike level R* RPD NA based on sample concentration

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Date: 21-Jul-16
Report Date: 21-Jul-16

QA/QC SUMMARY REPORT

Client: Montana Department of Environmental
Project: TO 40 SSTOU CONSTRUCTION OVER
Work Order: 1607047
BatchID: 10171

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
Sample ID: ***1607047-001D-D***			*Method:* ***E365.3***		*Batch ID:* ***10171***			*Analysis Date: 7/21/2016 12:45:00 PM*		
Phosphorus, Total (As	0.038	0.050	mg/L					0	20	J
Sample ID: ***1607047-001D-S***			*Method:* ***E365.3***		*Batch ID:* ***10171***			*Analysis Date: 7/21/2016 12:45:00 PM*		
Phosphorus, Total (As	0.864	0.050	mg/L	1.000	82.7	75	125			
Sample ID: ***10171-PB***			*Method:* ***E365.3***		*Batch ID:* ***10171***			*Analysis Date: 7/21/2016 12:45:00 PM*		
Phosphorus, Total (As	ND	0.050	mg/L							
Sample ID: ***LCS-10171***			*Method:* ***E365.3***		*Batch ID:* ***10171***			*Analysis Date: 7/21/2016 12:45:00 PM*		
Phosphorus, Total (As	1.68	0.050	mg/L	1.630	103	80	120			

Qualifiers: NA Sample conc. Is > 4*spike level R* RPD NA based on sample concentration

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Date: 21-Jul-16
Report Date: 21-Jul-16

QA/QC SUMMARY REPORT

Client: Montana Department of Environmental
Project: TO 40 SSTOU CONSTRUCTION OVER
Work Order: 1607047
BatchID: R32849

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
Sample ID: ***1607047-001A-D***			*Method:* ***E300.0***		*Batch ID:* ***R32849***		*Analysis Date: 7/7/2016 1:40:00 PM*			
NO2/NO3	ND	0.060	mg/L					0	20	
Sample ID: ***1607047-001A-LFM***			*Method:* ***E300.0***		*Batch ID:* ***R32849***		*Analysis Date: 7/7/2016 1:40:00 PM*			
NO2/NO3	8.40	0.060	mg/L	8.000	105	80	120			
Sample ID: ***LRB***			*Method:* ***E300.0***		*Batch ID:* ***R32849***		*Analysis Date: 7/7/2016 1:40:00 PM*			
NO2/NO3	ND	0.030	mg/L							
Sample ID: ***LFB #4650 7/13/16***			*Method:* ***E300.0***		*Batch ID:* ***R32849***		*Analysis Date: 7/7/2016 1:40:00 PM*			
NO2/NO3	4.36	0.030	mg/L	4.000	109	90	110			
Sample ID: ***LRB***			*Method:* ***E300.0***		*Batch ID:* ***R32849***		*Analysis Date: 7/7/2016 1:40:00 PM*			
NO2/NO3	ND	0.030	mg/L							
Sample ID: ***LFB #4650 7/13/16***			*Method:* ***E300.0***		*Batch ID:* ***R32849***		*Analysis Date: 7/7/2016 1:40:00 PM*			
NO2/NO3	4.27	0.030	mg/L	4.000	107	90	110			

Qualifiers: NA Sample conc. Is > 4*spike level R* RPD NA based on sample concentration

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Date: 21-Jul-16
Report Date: 21-Jul-16

QA/QC SUMMARY REPORT

Client: Montana Department of Environmental
Project: TO 40 SSTOU CONSTRUCTION OVER
Work Order: 1607047
BatchID: R32892

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
Sample ID: ***1607047-001A-D***			*Method:* ***A2340C***		*Batch ID:* ***R32892***			*Analysis Date: 7/11/2016 3:15:00 PM*		
Hardness (As CaCO3)	684	5.0	mg/L CaCO3					0.587	20	
Sample ID: ***1607047-001A-S***			*Method:* ***A2340C***		*Batch ID:* ***R32892***			*Analysis Date: 7/11/2016 3:15:00 PM*		
Hardness (As CaCO3)	908	5.0	mg/L CaCO3	200.0	114	75	125			
Sample ID: ***PB***			*Method:* ***A2340C***		*Batch ID:* ***R32892***			*Analysis Date: 7/11/2016 3:15:00 PM*		
Hardness (As CaCO3)	ND	5.0	mg/L CaCO3							
Sample ID: ***LCS***			*Method:* ***A2340C***		*Batch ID:* ***R32892***			*Analysis Date: 7/11/2016 3:15:00 PM*		
Hardness (As CaCO3)	202	5.0	mg/L CaCO3	200.0	101	80	120			

Qualifiers: NA Sample conc. Is > 4*spike level R* RPD NA based on sample concentration

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Date: 21-Jul-16
Report Date: 21-Jul-16

QA/QC SUMMARY REPORT

Client: Montana Department of Environmental
Project: TO 40 SSTOU CONSTRUCTION OVER
Work Order: 1607047
BatchID: R32983

Analyte	Result	RL	Units	Spike Lvl	% Rec	Low Limit	High Limit	RPD	RPD Limit	Qualifier
Sample ID: ***PB***			*Method:* ***E365.3***		*Batch ID:* ***R32983***		*Analysis Date: 7/8/2016 9:00:00 AM*			
Phosphorus, Dissolved	ND	0.025	mg/L							
Sample ID: ***LCS***			*Method:* ***E365.3***		*Batch ID:* ***R32983***		*Analysis Date: 7/8/2016 9:00:00 AM*			
Phosphorus, Dissolved	1.57	0.025	mg/L	1.630	96.0	90	110			
Sample ID: ***1607047-002E-D***			*Method:* ***E365.3***		*Batch ID:* ***R32983***		*Analysis Date: 7/8/2016 9:00:00 AM*			
Phosphorus, Dissolved	0.050	0.025	mg/L					0	20	
Sample ID: ***1607047-002E-S***			*Method:* ***E365.3***		*Batch ID:* ***R32983***		*Analysis Date: 7/8/2016 9:00:00 AM*			
Phosphorus, Dissolved	1.00	0.025	mg/L	1.000	95.1	75	125			

Qualifiers: NA Sample conc. Is > 4*spike level R* RPD NA based on sample concentration

FORM MSE-169
(Rev. 09/15)

MSE Technology Applications, Inc.
Laboratory Services

CHAIN OF CUSTODY

MSE WORK ORDER # 1607047

Company Name: M DEQ	Project Manager: Joel Chavez
Address: 1225 Cedar St	Project Name and Number: TO 40 SSTOU Construction Oversight
City: Helena State: MT Zip: 59601	Email Address: jchavez@mt.gov
Phone: 406-444-6407	Invoice To: / PO #: PO BOX 200901, Helena MT 59620-0901
Fax:	Sampler Name and Phone #: Logan Dudding 406-560-5647

ANALYSIS REQUESTED

SAMPLE ID	LAB ID	DATE	TIME	Total Metals & Mercury	Dissolved Metals & Mercury	Nitrate/Nitrite/Hardness	Total Phosphorus	Ortho Phosphorus		
RGP1	001A,B,C,D,E			✓	✓	✓	✓	✓		
RGP2	002A,B,C,D,E			✓	✓	✓	✓	✓		
RGP3	003A,B,C,D,E			✓	✓	✓	✓	✓		
RGP4	004A,B,C,D,E			✓	✓	✓	✓	✓		
RGP5	005A,B,C,D,E			✓	✓	✓	✓	✓		
RGP6	006A,B,C,D,E			✓	✓	✓	✓	✓		

REMARKS

Turnaround Time (TAT) / Reporting

- ☒ Standard
- ☐ Next Day*
- ☐ 2nd Day*
- ☐ Other* _____

*All rush order requests must have prior approval

- ☐ Phone
- ☐ Mail
- ☐ Fax
- ☒ Email

All reporting will be via email unless otherwise specified

Please email Results to Logan Dudding ldudding@pioneer-technical.com

Inspection Checklist

Received Intact?	☒ Y	☐ N
Labels & Chains Agree?	☐ Y	☒ N
Containers Sealed?	☐ Y	☒ N
Cooler Sealed?	☐ Y	☒ N

Delivery Method: hld in cooler on ice
Temperature (°C): 5.2°C
Preservative: H_2SO_4, HNO_3
no date time on coc, used pH bottles
Date & Time: 7/6/16 1300
Inspected By: L

RELINQUISHED BY (Signature)	DATE	TIME	RECEIVED BY (Signature)	DATE	TIME
Logan	7/7/16	1250	Sara Ward	7/7/16	1250
PRINTED NAME: Logan Dudding	COMPANY: PTS		PRINTED NAME: Sara Ward	COMPANY: MSE	
RELINQUISHED BY (Signature)	DATE	TIME	RECEIVED BY (Signature)	DATE	TIME
PRINTED NAME	COMPANY		PRINTED NAME	COMPANY	
RELINQUISHED BY (Signature)	DATE	TIME	RECEIVED BY (Signature)	DATE	TIME
PRINTED NAME	COMPANY		PRINTED NAME	COMPANY	

MSE LABORATORY SERVICES
200 Technology Way, P.O. Box 4078
Butte, MT 59701
PH: (406) 494-7334 / FAX: (406) 494-7230
labinfo@mse-ta.com

MSE Lab Services

Sample Receipt Checklist

Client Name: **MONTANA_DEQ** Date and Time Received: **7/7/2016 12:50:00 PM**

Work Order Number **1607047** RcptNo: **1** Received by: **SW**

COC_ID: CoolerID:

Checklist completed by Sara Ward 7/7/16 (Signature / Date) Reviewed by KO 7-8-16 (Initials / Date)

Matrix: Carrier name: Hand-Delivered

Shipping container/cooler in good condition?	Yes ✔	No	Not Present
Custody seals intact on shippping container/cooler?	Yes	No	Not Present ✔
Custody seals intact on sample bottles?	Yes	No	Not Present ✔
Chain of custody present?	Yes ✔	No	
Chain of custody signed when relinquished and received?	Yes ✔	No	
Chain of custody agrees with sample labels?	Yes	No ✔	
Samples in proper container/bottle?	Yes ✔	No	
Sample containers intact?	Yes ✔	No	
Sufficient sample volume for indicated test?	Yes ✔	No	
All samples received within holding time?	Yes ✔	No	
Container/Temp Blank temperature in compliance?	Yes ✔	No	
Water - VOA vials have zero headspace?	No VOA vials submitted ✔	Yes	No
Water - pH acceptable upon receipt?	Yes ✓	No	Blank

Adjusted? No Checked by KW

Any No and/or NA (not applicable) response must be detailed in the comments section bel

Client contacted: Date contacted: Person contacted:

Contacted by: Regarding:

Comments: H/D IN COOLER ON ICE WITH COC; NO DATES/TIMES COLLECTED ON COC, USED FROM BOTTLES; TEMP=5.2oC

Corrective Action

Appendix B Field Parameters Meter Calibration

Table C1. Conductivity Calibration
Calibrated using 1413 Solution
Reading was 1413 @ 21 Degrees Celsius
Kcell = 0.283

Table C2. pH Calibration
4.01 solution reported 4.00 @ 20 degrees Celsius
Edited 4.0 to 4.01 which reported 181.3 mV @ 19.4 degrees Celsius
7.00 solution reported 7.02 @ 20 degrees Celsius
Edited 7.02 to 7.00 which reported 9.8 mV @ 19.4 degrees Celsius
10.01 solution reported 10.08 @ 20 degrees Celsius
Edited 10.08 to 10.01 which reported -158.5 mV @ 18.8 degrees Celsius
Average Slope is 97.6%

Table C3. ORP Calibration
-9.9 offset set to 432.3 @ 22.3 degrees Celsius

Appendix C DEQ Circular 7 Montana Numeric Water Quality Standards Hardness Correction Method (Note 12)

Standards for metals in ground water are based upon the dissolved portion of the sample (after filtration through a 0.45 µm membrane filter, as specified in "Methods for Analysis of Water and Wastes" 1983, Environmental Monitoring and Support Laboratory, U.S. Environmental Protection Agency, EPA-600/4-79-020, or equivalent). Standards for alpha emitters, beta emitters and gamma emitters in ground water are based upon the analysis of filtered samples and appropriate EPA approved analysis methods.

Standard for organic parameters in surface water and ground water are based on unfiltered samples.

(10) Calculation of an equivalent concentration of 2,3,7,8-TCDD is to be based on congeners of CDDs/CDFs and the toxicity equivalency factors (TEF) in van den Berg, M: et al. (2006) The 2005 World Health Organization Re-evaluation of Human and Mammalian Toxic Equivalency Factors for Dioxins and Dioxin-like Compounds. Toxicological Sciences 93(2):223-241. The analysis method to be used is EPA Method 1613, Revision B, Tetra- through Octa-Chlorinated Dioxins and Furans by Isotope Dilution HRGC/HRMS), EPA Method 8290, or other method approved by the department on case by case basis. The Required Reporting Value(s) (RRV) for Dioxin and congeners are to be the lowest detection level for the analysis method approved by the Department.

(11) Radionuclides consisting of alpha emitters, beta emitters and gamma emitters are classified as carcinogens. “Alpha emitters” means the total radioactivity due to alpha particle emission. “Beta emitters” means the total radioactivity due to beta particle emission. “Gamma emitters” means the total radioactivity due to gamma particle emission. The emitters covered under this Standard include but are not limited to: Cesium, radioactive Iodine, radioactive Strontium-89 and -90, radioactive Tritium Gamma photon emitters.

(12) Freshwater Aquatic Life Standards for these metals are expressed as a function of total hardness (mg/L, CaCO3). The values displayed in the chart correspond to a total hardness of 25 mg/L. The hardness relationships are:

	Acute = exp.{ma[ln(hardness)]+ba}			**Chronic = exp.{mc[ln(hardness)]+bc}**	
	ma	**ba**		**mc**	**Bc**
Cadmium	1.0166	-3.924		0.7409	-4.719
Copper	0.9422	-1.700		0.8545	-1.702
Chromium (III)	0.819	3.7256		0.819	0.6848
Lead	1.273	-1.46		1.273	-4.705
Nickel	0.846	2.255		0.846	0.0584
Silver	1.72	-6.52			
Zinc	0.8473	0.884		0.8473	0.884

Note: If the hardness is <25mg/L as CaCO3, the number 25 must be used in the calculation. If the hardness is greater than or equal to 400 mg/L as CaCO3, 400 mg/L must be used in the calculation.

(13) This standard is based upon Water-Use Classifications. See Administrative Rules of Montana (ARM), title 17, Chapter 30 - Water Quality, Sub-Chapter 6 - Surface Water Quality Standards.